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DEVOTED TO THE INTERESTS OF THE MEDICAL PROFESSION AND PUBLIC HEALTH IN TEXAS

A Proposed Revision of the Constitution and By-Laws of the State Medical Association is published on pages 587-594 of this issue of the JOURNAL.

At the annual session in 1946, the Board of Trustees recommended a thorough "overhauling" of the Constitution and By-Laws. The recommendation met with the approval of the House of Delegates, and a committee was appointed to work out revisions for consideration at the 1947 annual session. The committee found it impossible to complete its task in the allotted year, but recommended that the study be continued and that specific revisions be submitted for action by the House of Delegates in 1948. The recommendation was adopted, and the Committee on Revision of the Constitution and By-Laws, with a few changes in personnel, was reappointed.

A meeting of the committee, now composed of Drs. Claude C. Cody, Jr., Houston, chairman; F. J. L. Blasingame, Wharton; T. C. Terrell, Fort Worth; E. A. Rowley, Amarillo; and Merton M. Minter, San Antonio, was held in Fort Worth on December 14. The deliberations of the committee resulted in agreement to submit to the House of Delegates at the annual session next April a revised Constitution and By-Laws based largely on those now in effect but incorporating certain changes which will eliminate discrepancies between parts of the Constitution and By-Laws themselves, enact into law practices which have gradually come into being, and include several new provisions designed to expedite the business of the Association.

Since the revision of the Constitution and By-Laws was authorized in 1946 and again in 1947 and publication of the proposed changes is being carried out approximately three months in advance of the 1948 annual session, the House of Delegates in April, under the provisions of the present Constitution, can take final action, and such changes as it approves can be put into immediate effect.

Among the changes which the committee recommends are the following:

1. The election of one instead of three Vice-Presidents.

2. Provision for a Speaker of the House of Delegates, who will be an officer of the Association.

3. Establishment of a War Council which can carry on the activities of the Association during a period of extraordinary emergency.

4. Reorganization of the Executive Council to make it a more active group.

5. Reclassification of committees to provide for boards and councils assigned the routine general activities of the Association, standing committees with five-year overlapping terms of office assigned the limited activities of the Association, and special committees with one-year terms of office assigned temporary or special duties.

6. A redefinition of the status of the Council on Medical Defense so as to place it

on a level with other councils, though with its activities roughly unchanged.

All members of the Association are urged to read the proposed revisions in their entirety and to become familiar with them. Particularly should delegates study the revisions and be ready to act on them when the House of Delegates convenes at the annual session.

Annual Reports of Officers, Councils, and Committees should be prepared in the near future. A letter has been mailed to those concerned with a request that reports be in the central office not later than March 15, preferably by March 1, so that they can be published and distributed to members of the House of Delegates prior to the annual session in April. The reports will as usual be included in the transactions of the House of Delegates as published in the JOURNAL after the annual session, but if they can be made available in handbook form before the House convenes, action by the House can be facilitated. The handbook has proved its value in the past.

The cooperation of each physician who is supposed to submit a report at the annual session is coveted by the central office staff. Promptness in turning in reports and having them in concise, legible form will be of great service.

Hotel Accommodations for the Annual Session should be reserved promptly if disappointment is to be avoided. Although the annual session dates of April 26-29 are still approximately three months away, some Houston hotels are already making reservations for that period and may have to begin turning down applications before long.

A request for reservations should be sent directly to the hotel of choice, but second, third, and fourth choices should also be indicated in the letter. If the hotel addressed is unable to take care of the reservation, the request will be turned over to the Hotels Committee of the Association, headed by Dr. Charles D. Reece, Medical Arts Building, Houston. The committee will do its best to find acceptable accommodations, being guided by the list of choices in the original letter. The committee points out that if members will avoid writing to several hotels at the same time but will include four choices in their application, confusion will be eliminated and service by the hotels and the committee can be expedited.

To aid those who are unfamiliar with hotels and tourist courts in Houston, the Hotels Committee has submitted the following list of facilities:

HOUSTON HOTELS

Hotel and Location	*No. Rooms*	*Rates From*
Auditorium, Texas & Louisiana	175	$2.25
Belmont, 1308 Clay	45	2.50
Ben Milam, Texas & Crawford	250	2.75
Bristol, 712 Travis	150	2.00
Cotton, Rusk & Fannin	175	2.20
DeGeorge, 1418 Preston	150	2.00
Fred's, 1006 Dallas	50	1.50
Lamar, Main & Lamar	500	3.50
Lamar Annex, 916 McKinney	100	2.50
Lee, 1114 Polk	50	2.25
Macatee, 519 Washington	100	2.00
Milby, Texas & Travis	150	2.00
Rice, Main & Texas	1,000	3.50
Roosevelt, 1111 Clay	75	2.25
Sam Houston, Prairie & San Jacinto	200	2.50
San Jacinto, Main & Walker	300	2.50
Stratford, 414 Fannin	120	2.00
Tennison, 801 Washington	120	1.50
Texas State, Fannin & Rusk	400	3.00
Travelers, 114 Main	75	1.50
Walee, 1010 Caroline	50	2.25
Wm. Penn, Texas & LaBranch	175	2.75
APARTMENT HOTELS		
Ambassador, 919 Fannin	75	2.50
Plaza, 5020 Montrose	102	3.50
Rhodes Apts., 611 LaBranch		4.00
Warwick, Main & Hermann Dr.	153	3.00

HOUSTON TOURIST COURTS

Court and Location	*No. Rooms*	*Rates From*
Alamotel, 8700 Main, Hwy. 59	23	$4.00
Blue Top, 4351 Telephone Rd.	25	2.25
Braeswood, 2116 Bellaire, Hwy. 59	16	4.00
Butterman's Chief Motel, 9000 Main, Hwy. 59	35	4.00
Carlon Hotel Tourist Cts., 8000 Main, Hwy. 59	40	3.00
Colonial Motel, 4509 Telephone Rd., Hwy. 35	8	4.00
Emerald Cts., 6531 Washington, Hwy. 290	35	2.00
Grace Cts., S. Main, Hwy. 59	24	3.50
Grant Motel, 8200 S. Main, Hwy. 59	26	4.00
Kings Tourist City, S. Main, Hwy. 59	21	3.00
Motor Inn Hotel, 8300 Main, Hwy. 59	64	3.50
Southmore Cts. No. 2, 5738 Almeda Rd., Hwy. 35	35	2.50
Garden Oaks Motor Hotel, 3403 N. Shepherd, Hwy. 75	84	6.00 double.

It should be remembered that the Rice Hotel, headquarters for the Association during the annual session; the Lamar Hotel, headquarters for the Auxiliary; and the Texas State Hotel, headquarters for public health, will be unable to take care of all the visitors expected for the annual session. Another of the hotels or tourist courts listed will be comfortable and almost as convenient and should be considered when reservations are requested.

Arrangements for the program and exhibits for the annual session are going forward. The Council on Scientific Work met January 17 to make final decisions concerning the scientific program. All technical exhibit spaces have been contracted for, and

Dr. X. R. Hyde, Medical Arts Building, Fort Worth, chairman of the Committee on Scientific Exhibits, is receiving applications for scientific exhibits. Motion pictures are being accepted at the Library of the State Medical Association, 1404 West El Paso Street, Fort Worth, for review before they are shown at the annual session.

It appears that all of the special related organizations which customarily meet on the Monday preceding the annual session proper will again convene with their programs of interest to the membership of the State Medical Association.

It will be recalled that a Section on General Practice will hold scientific meetings for the first time this year, and an effort is being made to include many items of particular interest to the general practitioner throughout the annual session program.

Another innovation will be a Wednesday night public meeting, which will feature outstanding guest speakers and will take the place of the host society entertainment that the House of Delegates voted in 1947 to curtail. Further announcement concerning this meeting as well as other parts of the program will be made as time goes on. The complete program will appear in the March issue of the JOURNAL.

Each member of the Association will find some part of the annual session, whether scientific paper, exhibit, debate in the House of Delegates, friendly conversation with other physicians, or something else still, that will repay him for attending the 1948 annual session. Now is the time to make arrangements to get away from routine duties and to secure accommodations in Houston for the period of the session. Foresight not only in planning but in acting is recommended.

Several Changes in the Official Family of the State Medical Association have occurred since the list of officers and committees was published in the September, 1947, issue of the JOURNAL.

Dr. W. D. Jones, Dallas, resigned from the Council on Medical Defense on December 22, 1947. He had served continuously as chairman of the council since its establishment in 1914, and had been chairman of the Committee on Medical Defense for three years before that. President Dr. B. E. Pickett, Sr., Carrizo Springs, has appointed Dr. L. B. Jackson, San Antonio, who was already a member of the council, to be its chairman, but the vacancy in membership caused by Dr. Jones' resignation has not been filled. Dr. Jones' term would have expired with the 1948 annual session.

Dr. Z. T. Scott, Austin, who was appointed June 24, 1946, to fill a vacancy on the Committee on Legislation, found it necessary to resign, and Dr. G. W. Cleveland, Austin, was appointed September 16, 1947, to serve the remainder of the term, which will expire in 1949.

The Committee on Cancer has had two recent changes. Dr. Frank C. Beall, Fort Worth, who served on the committee from 1933 until 1938 and was elected again in 1943, has resigned. He will be succeeded by Dr. Charles Phillips, Temple, who was appointed December 6, 1947, by the President to serve the remainder of the term, which expires in 1949. Dr. C. B. Carter, Dallas, who was appointed to the committee on February 24, 1947, resigned and was replaced on December 18, 1947, by the appointment of Dr. C. D. Bussy, Dallas, who will serve until 1950.

A vacancy on the special Committee on Revision of the Constitution and By-Laws was created December 4, 1947, by the death of Dr. Holman Taylor, Fort Worth. Dr. Merton M. Minter, San Antonio, was appointed on December 8 to fill this vacancy.

The Association acknowledges its debt to those council and committee members who have given their time over a period of months and particularly to those who have served so faithfully for many years to advance the causes of the medical profession and the public health. To those who have assumed new responsibilities, the Association offers its support.

Association Handbook and Directory.—Members of the State Medical Association may expect soon to receive individual copies of the Association's "Handbook and Directory for Doctors."

Due to the need for this type of handbook as indicated through a high degree of interest on the part of the various physicians over the state, every effort is being made to prepare a complete and concise booklet which can conveniently remain near the doctor's finger tips at all times.

Condensed to the "pocket digest size," the handbook will contain a variety of material which is intended to serve as a source of information for doctors, as well as a source of professional inspiration in carrying out even the most routine tasks which make up the day for the average doctor.

In considering the contents of the handbook each doctor should read with careful attention the introductory and heartfelt message from Dr. B. E. Pickett, Sr., Carrizo Springs, President of the State Medical Association, which in itself constitutes a plea for all of the finer traditional attitudes which make up the Code of Ethics as printed in

the handbook with permission from the American Medical Association.

It is expected that the section of the handbook devoted to the alphabetical listing of individual members of the State Medical Association will be of particular assistance. The list with professional classifications, phone numbers, and mailing addresses should prove an excellent means of contact among doctors, as well as provide a handy chart for reference of transitory patients. The reprint giving membership requirements in the State Medical Association and the brief explanation of the services of the Association to its members are intended to serve as a convenient reference to those who find occasion for clarification of these matters.

The center page of the handbook and directory will present an organizational chart of the State Medical Association which should clarify some of the confusion as to channels and lines of authority, and may serve as a "flow chart" for individuals and committees over the state. The organizational chart is believed to be accurate and up to date, and probably represents the first of its kind to be presented for the Association as a whole.

The chart as shown in the handbook is an adaptation of an 18 foot display panel which was designed for easy transportation to various meetings over the state. This display is available for use of county and district societies or auxiliaries, related professional organizations, or other interested groups upon request.

In addition to these things, the handbook will contain an important introduction to the program designed to foster better public relations for the medical profession in Texas. This program will be described in an explanation of Association policies toward the public by Dr. George A. Schenewerk, Dallas, chairman of the Committee on Public Relations. Other items of special interest to the membership of the Association will include a brief history and background of the Association, a brief introduction to the Package and Motion Picture Library facilities and services; and the objectives and purposes of the Association as taken from the current Constitution and By-Laws of the State Medical Association.

All of this material, arranged in a convenient, useful order within the handbook, is being prepared and will be distributed under the supervision of the Public Relations Committee as a direct service to every registered member of the State Medical Association of Texas.

Bound in a durable, attractive covering which will bear the true Rod of Aesculapius, the booklet is expected to be useful, as well as ornamental. It is believed that final copies of the 1948 edition will be off the press and ready for mailing by February 1. If the handbook proves to be helpful to members of the Association, a new edition will probably be prepared and distributed each year. Suggestions for its improvement will be welcome.

Poll Taxes Must Be Paid by February 1 if voting privileges are desired for 1948. Since elections to fill state and national offices as well as many elections of local significance will be held in 1948, it is particularly important that all citizens who are otherwise eligible to vote should pay their poll taxes at this time.

It is certain that bills of special interest to physicians will be introduced in both the next Congress and the next Legislature and that additional matters pertaining to health will be brought to the attention of other public officials who will be elected this year. While physicians and their families should be sufficiently interested in the general welfare of the country to want to vote, the prospect of governmental action in health and medical fields is an added incentive.

Let not carelessness deprive our citizens of their right to vote. Poll taxes may not seem important in January, but poll tax receipts will be highly valued in July, August, and November.

CURRENT EDITORIAL COMMENT*

The Surgical Treatment of Pulmonary Tuberculosis.—Various surgical procedures are employed in the treatment of pulmonary tuberculosis to complement the fundamental principal of rest. The surgical procedures used were developed over a period of many years and are aimed at collapse of the diseased lung by one method or another. Pneumothorax, pneumoperitoneum, phrenic nerve paralysis, thoracoplasty, extrapleural pneumothorax, plumbage, and other compression procedures such as oleothorax, collapse the diseased lung, thereby facilitating healing through rest.

As a result of rapid developments in the broad field of thoracic surgery, certain changes have taken place in the concepts of the surgical treatment of pulmonary tuberculosis. It is now more clearly realized that the tracheobronchitis frequently present should be found and treated before collapse measures are utilized. Bronchoscopy is now

*This department of the JOURNAL presents editorial comments on current items pertaining to the science, art and practice of medicine, contributed by members of the State Medical Association and scientists closely associated with the medical profession of Texas. Invitation is hereby extended to any member of the State Medical Association of Texas to submit such discussions for this department. The discussions should not be more than 500 words in length.

a more frequently employed diagnostic and therapeutic procedure than formerly. Intrapleural pneumononolysis has been more widely utilized to make pneumothorax more effective. The indications for collapse therapy have been extended so that more patients are now receiving the benefits of thoracoplasty. The modern thoracoplasty has become a partial, selective procedure with the objective of the preservation of the healthy portion of lung in a state of expansion.

Pulmonary resection for tuberculosis is now indicated and can be done for conditions such as marked bronchial stenosis, tuberculous bronchiectasis, thoracoplasty failures, and tuberculoma. Decortication is a useful procedure to obtain expansion of the lung for patients having chronic constrictive pleuritis due to tuberculosis, and for those in whom an unexpandable lung follows pneumothorax therapy.

Pulmonary tuberculosis is a constitutional disease. It is frequently bilateral or at least should be considered so even though scattered foci are inactive or not visible by the roentgenogram. Total excision of all diseased areas is impossible, and previously quiescent foci may activate with radical alterations in the pulmonary dynamics as occur following pulmonary resection. Herein lies the explanation for the poor results following resection for tuberculosis lesions such as tension cavities and destroyed lungs. Thoracoplasty collapses and relaxes the diseased portions of lung and at the same time protects the remaining ipsilateral and contralateral portions by diminishing over expansion of lung tissue. It results in satisfactory collapse of the affected portion of lung with arrest of the disease in a high percentage of cases at a relatively low risk.

Surgical treatment of pulmonary tuberculosis employed as an adjunct to rest is so effective that it is now used in from 50 to 80 per cent of the sanatorium cases. Rest alone is not sufficient in the treatment of pulmonary tuberculosis. Drugs such as streptomycin may be effective in the prevention of lung destruction under certain circumstances. However, at the present time we know of no drug which will uniformly produce healing and yield the satisfactory results of surgery in the presence of lung destruction.

It is proper that sanatorium facilities be expanded to include provisions and personnel for the complete treatment of patients having pulmonary tuberculosis by means of rest, drugs, and surgery.

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ORIGINAL ARTICLES

TUBERCULOSIS IN INFANTS AND CHILDREN

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There is a distinct tendency to minimize the importance of tuberculosis in infants and children. Two factors are largely responsible for this attitude. The first of these is an overemphasis upon the consideration that "primary infections" are benign in character, and the second stems from the decreasing rates of morbidity and mortality from this infection.

It is not possible to distinguish with certainty between the infections of primary and reinfection tuberculosis in man. In experimental animals, differences can be demonstrated between the two lesions when the second inoculation of the animal is properly timed. In man there is no such control, and infections are frequently superimposed upon one another before the previous infections have had sufficient time for their full development. While it is true that the majority of persons, perhaps of all age groups and certainly during childhood, are unaware of the time of occurrence of their initial infection by the tubercle bacillus, the important fact is that infants and children do have extensive tuberculous lesions and do die from them. In a series of 699 autopsies on infants and children, Terplan found tuberculous lesions in 57 of the bodies. In 35 instances, tuberculosis was the cause of death, and it was his opinion that in 30 of them the lesion was primary.

The relative importance of tuberculosis as a cause of death among children is evident from the fact that this disease ranks fifth in children up to 10 years of age, fourth in those from 10 to 14 years of age, and second in those from 15 to 19 years, in contrast to ranking seventh as the cause of death for all age groups. In the 15 to 19 years age group, tuberculosis leads all other infections as a cause of death: it is exceeded only by accidents. How many of these lethal infections are primary and how many are reinfections is not known. There is accumulating evidence which indicates that age factors may be responsible for characteristics of tuberculous lesions which in the past

From the Department of Pediatrics, Temple University School of Medicine.
Read before a general meeting of the State Medical Association of Texas, Annual Session, Dallas, May 8, 1947.

have been attributed to an altered reaction pattern resulting from a preexisting lesion. Thus, isolated apical and infraclavicular lesions with little or no demonstrable evidence of tracheobronchial lymph node involvement, which in the past have been considered to be characteristic of reinfection tuberculosis, are being demonstrated with increasing frequency in older children, adolescents, and young adults who were known to be tuberculin negative a short time prior to the detection of the pulmonary lesion.

It would seem that there is insufficient evidence to attempt the clinical determination of whether a particular tuberculous lesion is primary or a reinfection. Furthermore, in spite of the fact that the tendency of the tuberculous lesion is toward healing and that the majority of lesions do heal, it is unwise to fail to recognize that any lesion, irrespective of its size, may extend locally or may be disseminated by hematogenous or bronchogenic routes to produce serious lesions in other parts of the body. Dissemination from a localized pulmonary lesion is the principal danger in infants and small children, tuberculous meningitis being the principal cause of death. The likelihood of dissemination would seem to be as much a matter of chance of location in relation to a channel of spread (blood vessels and bronchi) as it is a matter of size of the lesion. For this reason, no lesion can be considered benign until there is substantial evidence of healing.

It is my opinion that much confusion could be avoided if diagnostic terms were limited to demonstrable features, and if terms which imply the sequence of the infection were discarded. Thus I prefer that diagnostic designations of tuberculous lesions or of those suspected of being tuberculous be limited (1) to an anatomic description of the location, extent, and roentgenographic appearance of the lesion; (2) to the probability of the activity of the lesion; and (3) unless proved, to the probability of etiology. Except in the case of terminal tuberculosis or when tubercle bacilli are demonstrated, no lesion should be considered as tuberculous in the absence of a positive tuberculin reaction. A satisfactory designation of the condition in a child who has a positive tuberculin reaction but no clinical or roentgenographic disease is "hypersensitivity to tuberculin, with no demonstrable lesion."

The physician who expects to recognize a majority of the tuberculous infections among the children in his practice must be aware of the wide variety of lesions and clinical patterns which may result from pulmonary and extrapulmonary tuberculous infections. In a large percentage of the children who are presented for the diagnosis of chronic infections and even in some whose history of illness is of short duration and severe in character, tuberculosis must be considered in the differential diagnosis. Perhaps of equal importance to the practitioner who assumes the long range responsibility for his patients is the necessity of being aware that tuberculous infections may exist in an active stage in infants and children without producing symptoms of sufficient severity to make parents, child, or physician aware of them. Thus there is ample justification for periodic tuberculin testing and roentgenographic examinations of family, school, and community groups.

INTRATHORACIC LESIONS

The intrathoracic lesions include those of the pulmonary parenchyma, pleura, and tracheobronchial lymph nodes as well as the much less common tuberculous involvement of the pericardium. This is not the place to enumerate or to describe the wide variety of lesions and their clinical patterns which do occur in the pulmonary tissues. Reference must be made to the standard textbooks for such information. It is necessary to point out, however, that the majority of nontuberculous pulmonary lesions may be simulated by tuberculous lesions and that conversely many lesions which roentgenographically have been considered characteristic of pulmonary tuberculosis may be produced by nontuberculous infections, notably those caused by certain fungi.

Obstructive emphysema or resorption atelectasis of all or part of a lobe which is secondary to a partial or complete occlusion of a bronchus by a tuberculous lesion cannot be distinguished by physical or roentgenographic examination from similar lesions resulting from nonopaque foreign bodies, neoplasms, or nontuberculous infections. Areas of pneumonic infiltration likewise may have similar appearances whether they are tuberculous or nontuberculous in origin. Pyogenic infections of the lung, with abscess formation, may have roentgenographic appearances quite similar to tuberculous lesions with cavity formation. The chronic apical lesion with or without cavity formation has generally been considered to be characteristic of tuberculosis and in the majority of instances such lesions are tuberculous in origin. However, in the last few years some doubt has been raised as to whether all such lesions are the result of tuberculous infection.

Skin tests with the antigens of certain fungi, particularly of the Coccidioides immitis and of Histoplasma capsulatum, have shown a positive correlation in certain sections of this country between positive reactions to one or the other of these antigens and calcified pulmonary and tracheobronchial nodal calcifications. These calcifications cannot be distinguished roentgenographically from those occurring in association with positive tuberculin reactions. In certain areas of this country there is a higher incidence of skin reactions to histoplasmin in persons with intrathoracic calcifications than there is to tuberculin. The question is naturally raised whether the precursors or active stages of these calcified lesions can be distinguished by roentgenographic means from noncalcified tuberculous lesions. There is some fragmentary evidence to suggest that they cannot be. On the other hand, it must be emphasized that there are not sufficient data at the moment to permit the conclusion that skin sensitivity to histoplasmin is proof of infection with the Histoplasm capsulatum since several different fungi appear to have a common antigenic substance.

If the localized apical and infraclavicular lesions, the miliary type of dissemination, and the calcified pulmonary focus in association with calcified tracheobronchial lymph nodes, which have been considered from a roentgenographic standpoint as being the most characteristic of the tuberculous lesions, can be the result of fungous infections, it is obvious that additional diagnostic data are necessary before an etiologic diagnosis can be made. It seems especially necessary to take such a stand because of the increasing use of the roentgenogram in the appraisal of the individual patient and of the photofluorogram or other small film in surveys.

It cannot be emphasized too strongly that a positive diagnosis cannot be made from the roentgenogram alone. The roentgenogram is without question the most effective means for the localization of pulmonary and osseous lesions; it is not unusual that pulmonary lesions which are demonstrable on the roentgenogram are missed completely on the physical examination. However, it is unwise to make more than a presumptive diagnosis of tuberculosis in relation to any given lesion, irrespective of how "characteristic" the roentgenographic shadow may be, without additional data from bacteriologic examinations and/or the tuberculin test.

Bronchoscopic examination may provide direct view of an intrabronchial lesion from which material can be obtained for histologic study, and it may also provide a means for obtaining material for bacteriologic examination from children who will not expectorate their sputum.

EXTRAPULMONARY TUBERCULOSIS

None of the body's organs, viscera, or skeletal structures is immune to tuberculous infection and the clinical patterns produced may simulate many other disease entities. With the marked reduction in the incidence of tuberculous infections by the bovine tubercle bacillus, however, there has been a proportionate decrease in initial extrapulmonary lesions. This decrease for all practical purposes is limited to primary lesions of the alimentary tract in the tonsils and intestines. While both of these structures may be secondarily infected from pulmonary lesions, and occasionally are, the total number of infections in the tonsils and intestines has been markedly reduced, as have the lesions which may stem from them, such as cervical adenitis, mesenteric adenitis, and peritonitis. Primary tuberculosis of the skin is extremely rare, but when it does occur there is usually involvement of the regional lymph nodes.

Structures of the body, which have no external exposure can only become involved by dissemination of tubercle bacilli by way of the blood stream. The most frequent cause of death from tuberculosis in infants and in small children is tuberculous meningitis. Tuberculous meningitis is rarely a direct blood stream infection, most often being the result of erosion of a caseous tuberculoma into the subarrachnoid space. Tuberculomas are of course the result of hematogenous disseminations and may be responsible for the symptoms of an expanding intracranial lesion. Osteomyelitis is one of the most frequent of the hematogenously disseminated tuberculous lesions, and while the nature of the disturbance may be suspected from the roentgenogram, bacteriologic confirmation when possible and a positive tuberculin test in all instances should be obtained before a diagnosis is made. Tuberculosis may affect any of the structures of the genito-urinary system, but the kidneys and the male genital organs are most frequently involved. The possibility of a tuberculous lesion should be considered in all instances of chronic otitis media. While such tuberculous involvement of the skin as lupous and scrofulous lesions are infectious in origin, erythema nodosum and possibly the tuberculides are the result of allergic or toxic factors. Likewise phlyctenular conjunctivitis is generally considered to be allergic and not infectious in nature.

BACTERIOLOGIC EXAMINATION

The demonstration of tubercle bacilli in material from a suspect lesion is the only means by which a diagnosis can be made with certainty except in the occasional instance when biopsy material can be obtained for histologic examination. While it is not always possible to demonstrate tubercle bacilli from a child with an active tuberculous infection, it frequently is possible provided that suitable material for examination is obtained and that the laboratory work is carefully performed by an experienced technician.

When the suspected lesion is in the lungs and the child is too small to expectorate, material for examination may be obtained by bronchoscopic aspiration or by gastric lavage. The latter procedure is the more widely employed for obvious reasons. It should be performed an hour or so before the usual breakfast time so that the stomach will not have been emptied of the material which has gravitated into it from the respiratory tract during the night hours. All material, irrespective of its source, should be concentrated with alkali before it is subjected to bacteriologic examination, which includes direct smear and staining, and either culture on artificial media or inoculation of nontuberculous guinea pigs. There should be at least three negative examinations before the patient is considered to be noninfectious.

TUBERCULIN

The tuberculin test provides the most accurate means available for the identification of persons who have had tuberculous infections. The accuracy of the test is well over 95 per cent. In the short period of from three to eight weeks or so immediately following the initial infection with the tubercle bacillus and prior to the development of allergy there is no skin reaction to tuberculin. Subsequently, tuberculin allergy may disappear during the terminal stage of fatal tuberculous disease and temporarily during any acute febrile disease. If these exceptions are kept in mind the tuberculin test will be found to be an exceedingly useful tool in the evaluation of a particular patient and for a survey of family or larger groups for the detection of those persons who have had a tuberculous infection.

The recent observations that skin reactions to coccidioidin and to histoplasmin in certain geographic areas of the country are associated with pulmonary lesions which roentgenographically are indistinguishable from those of tuberculosis have enhanced the diagnostic value of tuberculin as a testing medium. Other studies have shown a high degree of correlation between the skin reaction to tuberculin and the presence of proved tuberculous disease. The demonstration now that many of the lesions which were considered to be tuberculous but which were associated with negative tuberculin reactions occur in persons who have skin reactions to coccidioidin or to histoplasmin serves to explain what in the past has been considered a shortcoming of the tuberculin test.

A positive reaction does not provide any clue in regard to whether the reactor has an active or an inactive lesion. Such information must be derived from the medical history, the physical examination, the roentgenogram of the chest, the temperature course, the blood count, and the sedimentation rate. It must of course be recognized that evidence of active disease in a person with a positive tuberculin test is not sufficient for a diagnosis of tuberculosis even though the clinical course is compatible with such a diagnosis. To the extent that the clinical pattern is compatible and that other etiologic factors can be ruled out, the diagnosis of tuberculosis can be made on a presumptive basis. Every attempt should be made to establish the proof of a diagnosis of tuberculosis by the demonstration of tubercle bacilli. In the absence of such proof, it seems wise at the present time to perform skin tests with fungous antigens such as coccidioidin and histoplasmin. When there are positive skin tests to more than one of these antigens in the same child, an etiologic diagnosis of active disease cannot be made without demonstration of the causative organism.

Tuberculins available for skin testing purposes are Old Tuberculin (O. T.) and Purified Protein Derivative (P. P. D.). The initial testing dose of O. T. is 0.1 cc. of a 1:1,000 or 1:10,000 dilution, and the second testing dose for those who do not respond to the first is 0.1 cc. of a 1:100 dilution. The standard first and second testing strengths of P. P. D. are 0.00002 mg. and 0.005 mg., respectively, with each dose being contained in 0.1 cc. of diluent. In view of evidence that falsely positive skin reactions are obtained to large doses of tuberculin and that such reactions are occasionally obtained to the amount contained in the second testing strength of P. P. D., it is my current practice to use half the standard amount only, or 0.0025 mg., for the second dose when there is no reaction to the first testing dose.

It is important to be aware that tuberculin is heat stable and that it may adhere to glass syringes in spite of washing and sterilizing. If the syringe is then used for some other

testing solution, a sufficient amount of tuberculin may become dissolved to produce a positive tuberculin reaction in a child who is extremely sensitive to it. For this reason, the physician should take the necessary precautions to see that separate syringes are maintained for the various skin testing solutions.

The Vollmer patch test may be used as a substitute for the first testing strengths of either O. T. or P. P. D., but when there is no reaction to that test an intracutaneous test with the second testing strength of either of these two tuberculins should be used.

FAMILY AS AN EPIDEMIOLOGIC UNIT

The family of each child with a positive tuberculin reaction should be investigated for the possibility of active tuberculous disease. Such a plan has a triple purpose: (1) the detection of active cases for the purpose of treatment, (2) the removal of persons with open tuberculosis from the environment of the child with a positive tuberculin reaction in order to avoid reinfection, and (3) the contribution of the family practitioner to the community's public health program.

Ideally each member of the family should have a tuberculin test and a roentgenogram of the chest (photofluorograms are satisfactory). If this procedure is not feasible, at least the positive tuberculin reactors should be examined roentgenographically. The negative reactors should be reexamined within from three to six months if an open case of tuberculosis is found within the family. In addition to the immediate family, any relatives with whom the child has close contact should also be examined, as should other such close contacts as friends and domestic help. It should be recognized that no person is too old to be considered as a possible source of infection. Chronic open tuberculous disease does occur in the aged, and grandparents are not an infrequent source of tuberculous infection in children.

PROPHYLAXIS

The ideal method of prevention of tuberculosis is the avoidance of exposure by detection and removal of all active cases from a community. In spite of the marked decline in the mortality rate from tuberculosis, this disease still constitutes a major public health problem. In some communities fairly adequate surveys have been made, and others are making preparations for such surveys. The individual physician should realize that he can make a significant contribution to the community health program by determining the tuberculous status of the families under his care.

For the past twenty years or so there has been considerable interest in BCG vaccine for the production of artificial immunity against tuberculosis. It is now widely used in certain European and South American countries. There are sufficient data to attest to its safety, and it seems that it does confer a measurable but limited immunity. The Tuberculosis Control Division of the United States Public Health Service is planning further controlled studies in this country, but at this time they advise against making the vaccine available for private use.

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CORONARY DISEASE IN DIABETES

Persons suffering from diabetes are twice as likely to have coronary artery occlusions as are nondiabetic men and eight times as likely as are nondiabetic women, according to an article in the October, 1947, *Archives of Internal Medicine.*

Samuel Stearns, M. D., assistant in medicine at Tufts College Medical School, Boston; Monroe J. Schlesinger, M. D., assistant professor of pathology at Harvard Medical School, and Abraham Rudy, M. D., late head of the Diabetic Clinic of the Medical Service of the Beth Israel Hospital, in a postmortem study of the hearts of 50 unselected diabetic patients, found some arteriosclerosis in all of them and "functionally significant" coronary artery disease in a larger number than would be expected from previous studies: 37, or 74 per cent. This last figure was in contrast to 37 per cent in 400 consecutive nondiabetic patients of approximately the same average age.

Coronary artery occlusions were found in 32 (64 per cent) of the 50 diabetic hearts and as frequently in women as in men; similar occlusions were found in only 23 per cent of the nondiabetic men and in but 8 per cent of the nondiabetic women.

The severity of the coronary arteriosclerosis was found to be definitely related to the duration but not to the severity of the diabetes.

THE USE OF RADIOACTIVE ISOTOPES IN DIAGNOSIS AND THERAPY

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The purpose of this paper is to discuss the medical application of radioactive isotopes, and will be confined to their applications and indications. No attempt will be made to go into the technical discussion of production or methods of measurement or technical factors in the use of these substances.

The use of radioactive isotopes in biologic study was begun in 1934. It was made possible by the development of the cyclotron by Dr. Ernest Lawrence in 1932. The construction of an instrument that was capable of producing high energy, subatomic particles made it possible to produce radioactive isotopes in appreciable quantity. The biologic application of radioactive isotopes in 1934 consisted in animal and plant experimentation. Not until some months later were the materials used in human beings.[2,3,4,10,13]

Radioactive isotopes are sister forms of an element. They are essentially twins in biologic and chemical features and in general may be considered indistinguishable by these means. They vary only in their atomic weight and in the fact that the radioactive twin sister is constantly emitting an ionizing radiation which can be detected by sensitive instruments such as the Geiger counter or electrometer units. It is possible by detecting these ionizing radiations to follow the course of the radioactive materials from cell to cell and from organ to organ in the body. The absorption, digestion, assimilation, and excretion can be accurately followed.

Since radioactive isotopes emit ionizing radiations, they can be used in medical applications in the following manner: (1) as tracer techniques, since highly sensitive quantitative detections of the radiation can be accomplished, and (2) in therapy, since the isotopes can deliver ionizing radiation capable of producing biologic changes. When the isotopes are used in tracer quantities, that is, in very small and minute quantities, the ionizing effect can be very readily picked up on the highly sensitive instruments, but they do not produce sufficient ionization in the cells to have a deleterious effect. Isotopes are frequently used in a double role of both tracer elements and therapy. It is common practice in using radioactive iodine in thyroid disorders to give a small tracer quantity to determine the selective uptake of the material by the thyroid gland and, on the basis of this finding, make calculations to determine the amount of radioactive iodine that is necessary to produce the desired therapeutic effect. This amount is then given to the patient.

There are some four hundred radioactive isotopes now possible of production. There are only a few which are being currently used in medical investigations and therapy. The most commonly used radioactive isotopes at the present time are those of phosphorus, iodine, sodium, strontium, iron, calcium, sulfur, hydrogen, and carbon. By far the most commonly used of these are radioactive phosphorus and radioactive iodine.

There are many widespread uses of tracer techniques in all fields of science. Physiologic and biologic functions are being traced by the fundamental scientists. The assimilations of minerals from ingested foods are being followed through the body so that every step can be studied until the mineral is excreted. There are many excellent papers written entirely on these subjects, and time will not now permit a detailed discussion of tracer techniques.

Under the heading of diagnostic uses of radioactive isotopes in medical practice comes the use of radioactive iodine in the investigation of iodine uptake by the thyroid gland. This use of radioactive iodine has had a thorough investigation. Iodine is an organ bound element which is absorbed almost entirely in the thyroid gland and practically none in the other tissues of the body. For this reason, it is a particularly useful element. The variation in absorption of the iodine by the thyroid can often be an adjunct in the diagnosis of early hyperthyroidism and in early myxedema.[5,6,7] The effectiveness of thiouracil can be determined by administration of radioactive iodine following saturation with thiouracil.[11]

The affinity of the radioactive iodine for the thyroid gland makes it a suitable substance for tracing those carcinomas of the thyroid which absorb the radioactive iodine.[8] Since only a small percentage of the carcinomas of the thyroid absorb radioactive iodine, this form of diagnostic procedure may not become widely used, but it will offer a method of searching out distant metastasis in selected carcinomas of the thyroid.

The use of radioactive phosphorus as a means of predicting pathologic findings in breast tumors and axillary nodes has been suggested by Low-Beer and others.[9] It has

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been found that malignant tumors in the breast pick up more radioactive phosphorus than do nonmalignant tissues, and that on this basis, a prediction of considerable accuracy can be made regarding the etiology of tumor masses in the breast and axilla. This method will be advantageous to the surgeon in determining the type of operative procedure to plan. It is not intended to replace microscopic study and should be used only as an adjunct to other methods of diagnosis until further investigation can be done. The value of determining malignant change in high axillary nodes and in the supraclavicular region can be readily appreciated by those who have had to speculate on the morphology of these nodes. It is also possible by the use of radioactive phosphorus to determine radio-sensitivity of lymph node enlargement, particularly nodes in the lymphoblastoma group. Some of these patients of the lymphoblastoma group will also show significant absorptive changes which can aid in determining the stage of activity of the disease and thereby impart the prognosis of the case.

The use of radioactive sodium primarily, but also of radioactive phosphorus, in determining the adequacy of circulation in the extremities in the presence of vascular disease before amputation has been successful in showing where amputation can be carried out at the most distant point for vitalization of tissue and with minimum sacrifice of the extremity.

In the field of therapy with radioactive materials at the present time, there are two conditions which stand out above others as being ideal for the use of radioactive materials. These are noncancerous conditions. One is polycythemia vera in which radioactive phosphorus is by far the method of choice in present day treatment. The response of the patient to treatment, the long periods of remission, the freedom from disagreeable symptoms, and prolongation of life are evident. There are numerous reports in literature of its efficacy.[1,12,13,14] We have found that the response to such therapy is excellent and that more than 80 per cent of the patients get long remissions.

The technical details of the treatment will be eliminated; suffice it to say we believe patients should be under observation with dosages given over a period of about three weeks. A small dose is first given to determine sensitivity of the cells, followed by therapeutic doses at from two to three day intervals until the total dosage desired is reached. The patient is then seen at weekly intervals for eight weeks with complete blood counts being taken each week. If the red count is increasing or unusually high, phlebotomy may be carried out. No other drug therapy or other methods of control are employed during this period. At the end of the eight week period, the effectiveness of the radioactive phosphorus can be accurately estimated and if additional dosage is needed, it should be given at this time. The average case requires observations at only about six months to yearly intervals after the initial remission has been produced.

The second condition particularly amenable to radioactive isotope therapy is hyperthyroidism or thyrotoxicosis. Approximately 80 per cent of patients with this disease can be adequately and efficiently treated without the inconvenience and expense of surgical removal of the gland. The average patient with thyrotoxicosis can be given a tracer dosage of the radioactive iodine for measurement of selective uptake in the gland by the Geiger counter. Estimation of necessary dosage to produce the desired effect can then be made and the treatment procedure carried out in a few days. During the period of treatment the patient is ambulatory, and except for a few visits to the doctor can live a normal life. During the administration of radioactive iodine, all other forms of iodine are prohibited. The patient is controlled by antispasmodics and sedatives during the period that effectiveness of the radioactive iodine treatment is reached. In most instances this therapy will suffice and the patient will return to a normal state of health in a period of a few weeks. There are practically no serious complications. The patients occasionally experience a mild gastro-intestinal upset for a period of from twenty-four to forty-eight hours. We have had 1 case of iodine sensitivity in which there was an urticaria for a period of seventy-two hours after the iodine administration, but this patient responded promptly to benedryl administration and has received an excellent result from iodine therapy. In a small percentage of the cases, two or three treatment series are necessary at from three to six month intervals before complete relief of thyrotoxicosis can be accomplished.

There are two cancerous conditions in which radioactive isotopes are valuable adjuncts in treatment and will usually produce desirable palliative results. The first of these is in chronic leukemias in which remission can be produced in most cases. The effectiveness of radioactive phosphorus in prolonging the patient's life cannot be determined definitely, but we believe, as do many others, that there is a selective increase in

the longevity over other methods of treatment. It can be said definitely that the treatment of leukemia with radioactive phosphorus does not add the disagreeable effects of radiation sickness and of reactions on the skin which is sometimes necessary to produce remissions by roentgen irradiation methods. Furthermore, it has been the experience of most investigators that the radioactive phosphorus produces a remission in which the patient is in a more normal state of health with the blood picture returning to almost normal. It has also been found that in many cases which have become refractive to roentgen irradiation, desirable remissions can be obtained by radioactive phosphorus.

In treating the leukemias with radioactive phosphorus, there is considerable variation in methods and techniques as reported in the literature. It is our belief that the dosage requirements should be varied according to the type of case and the cell sensitivity. In the average case of chronic lymphatic or myelogenous leukemia, original dosages are given and then a period of three weeks intervenes before additional dosage is carried out. This procedure is followed in order to check the sensitivity of individual cells since it is not possible otherwise to check sensitivity, although a good estimation can be made from microscopic study. Following an initial test, additional radioactive phosphorus is given intravenously up to amounts considered adequate, and interval treatments with intervening rest periods are carried out. Usually we see our patients at intervals of from three to six months after remission has been established with the referring doctor checking blood counts and general condition in the intervening time. We find in certain instances where there is a markedly enlarged liver or very large lymphadenopathy which is producing symptoms of obstruction or marked discomfort, that localized roentgen irradiation directed to these areas plus radioactive phosphorus in systemic distribution is a valuable method of treatment.

In the acute leukemias the prognosis is grave and little can be done for these patients except to give symptomatic treatment. We have given very small doses of radioactive phosphorus to certain youngsters with acute leukemia with some beneficial effect of temporary nature. We believe that radioactive phosphorus is like other methods of treatment in acute leukemias; that it offers little to the patient. We are, however, following the policy of treating the patients who come to us, using very small repeated dosages of the material, and occasionally produce a satisfactory palliative remission lasting in some instances for several months. We believe that this method gives us the chance to treat the patient rather than to assume a defeatist attitude and do nothing. We feel that the patient is given more attention by doctor and family, and we have found the patients exceedingly appreciative of the efforts made.

Again it must be stressed that in the use of radioactive isotopes, as in the use of other methods of medical treatment, the techniques and treatment must be individualized to suit the case at hand and that no iron-clad rule can be established for their utilization.

The use of radioactive iodine in treating certain carcinomas of the thyroid is also a procedure worthy of consideration. Although the number of carcinomas of the thyroid that will absorb iodine are small, they are still appreciable enough to deserve consideration. It has been our experience that the tumor of the thyroid which will absorb iodine most efficiently is one in which there is an increased basal metabolic rate with some evidence of thyrotoxicosis. This is usually a low-grade metastasizing carcinoma of the thyroid and usually responds well to radioactive iodine therapy. The dosages in these cases must of necessity be large in order to produce the desired effects.

It has been pointed out by Marinelli of Memorial Hospital that in cases in which the radioactive material is absorbed only in small amount, a preliminary dose of the radioactive material can be given to destroy normal thyroid or a total thyroidectomy can be done and produce a myxedema. Radioactive iodine adequate to destroy the implants which have metastasized can then be given to the patient since there will be no danger of necrosis by higher absorption of iodine in the thyroid tissues of the neck because all of the thyroid tissues that remain through the body will have a uniform absorptive rate for the iodine. He reported 1 case in which this procedure was carried out with successful regression of a tumor which had very little selective uptake of iodine.

The use of various radioactive colloids in the treatment of neoplastic disease is being carried out at several centers. That insoluble chromic phosphate injected intravenously will deposit selectively in the liver and spleen has been reported from the University of California. This has been suggested in tumors of the liver and also in markedly enlarged spleens. This is the method by which the spleen can be removed bloodlessly in some of the blood dyscrasias. The insoluble chromic phosphate can also be injected into the pleural or peritoneal space where there are metastatic lesions in the pleura or peritoneum, and

it will remain insoluble and stay in these spaces to give uniform radiation over the areas. Injection of chromic phosphate beneath malignant tumors of the skin will produce adequate radiation in certain of these tumors and is not absorbed from the site of injection. Radioactive gold colloid and radioactive manganese dioxide colloid have been used intravenously in patients with lymphoblastoma with significant improvement by Hahn and Sheppard of Vanderbilt. The investigation of this group of materials must be carried further before widespread use will be carried out.

The usefulness of radioactive materials applied to surface lesions by blotting paper technique, as described by Low-Beer in the treatment of basal cell carcinoma, bears consideration. It is an easy method of applying ionizing radiation to lesions of the skin without producing depth dose damage. The effectiveness of radiation from radioactive phosphorus is limited to the first few millimeters of the body surface. Therefore, large doses can be given at contact surface on the skin with prompt healing of even widely irradiated areas. In our experience there has been an excellent response of keratotic lesions and basal cell lesions to this treatment, and the scarring effect has been practically none. We are also using the blotting paper technique in treating carcinoma en cirasse which is spread over wide areas of the chest wall, and in 2 of our cases there has been an excellent regression with general improvement in the patient. Biopsies through these sections have indicated the destruction of the carcinoma.

The future of radioactive therapy seems assured by the work that has been done to date. The developments in the future should give even greater tools with which to work, so that the ionizing radiations can be directed solely to the diseased tissues, making it possible for the biologic action to be confined to the tissues in which they are desired. As further developments are made in the synthesis of organic compounds from radioactive materials, the achievement of these aims will be probable.

The use of radioactive isotopes in tracer techniques and therapy is not without danger. It must be stressed that the isotopes should be used only by personnel competent to handle and administer such materials. It is the responsibility of the radiologist to call to the attention of his colleagues in other branches of medicine the hazards involved in the use of artificial radioactivity and to teach all those in contact with the project correct methods of handling the materials.

SUMMARY

There is one disease, polycythemia vera, in which radioactive phosphorus is the treatment of choice today. There is one disease, thyrotoxicosis, in which radioactive iodine is an acceptable method of therapy and probably will be used in more than 50 per cent of the cases in the future. Chronic leukemias respond well to radioactive phosphorus, which probably is the best method of treatment available today and certainly is as good as any other method now available. The treatment of carcinomas of the thyroid by radioactive iodine is a valuable adjunct for palliative treatment and possible cure in some patients. The use of certain radioactive colloids offers a chance of palliative management of malignant conditions as above mentioned. Certain skin lesions can be adequately treated by radioactive materials applied on blotting paper. The future seems bright for the use of radioactive isotopes in diagnosis and therapy.

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ABSTRACT OF DISCUSSION

Dr. William Marr, Galveston: Dr. Maxfield has clearly indicated that the use of the radioactive isotope is having a profound effect in the field of medicine. It is difficult to realize the full significance the use of these substances will have in the future. Fundamental research in biology has already in-

dicated that changes are necessary in current concepts of many of the physiologic processes of the various elements and organs of the body, even though the research is still in its infancy. There are many investigators who believe these radioactive substances will be hailed as a discovery second only to the microscope in making possible advances in knowledge in the field of biology. In hematology the use of iron tracers has done much to elucidate certain phases of iron metabolism that had previously been highly theoretical.

The use of radio isotopes in therapeusis is also in its infancy. Dr. Maxfield has discussed the use of radioactive phosphorus and radioactive iodine. Like Dr. Maxfield, others have observed gratifying remissions in polycythemia vera. I should like to comment, however, that when the patient is initially seen, the immediate need is for repeated bleedings to reduce the blood count to near normal since the effect of radiation on the existing blood count may not be apparent for several weeks. This procedure is recommended to avoid, if possible, any of the vascular complications common to polycythemia vera. I, too, am not very enthusiastic about the use of radio phosphorous in the leukemias, but I believe many cases can be symptomatically improved if they are carefully followed and individualized.

I heartily endorse Dr. Maxfield's views that the future holds many new uses for the radioactive isotopes. We probably are in for many surprises in connection with our previous ideas of physiology and pathology.

Dr. Martin Schneider, Galveston: Some concern was expressed on the part of investigators with respect to the possible damaging effect of radioactive phosphorus on phosphorus metabolism. It was thought, for instance, that the high concentration of phospholipins in cells of the central nervous system might make the metabolic processes of those cells peculiarly liable to damage. Do you believe that in the dosages used there is actually such a danger in clinical usage?

Dr. Maxfield, closing: In answer to Dr. Schneider, I believe that the dosages now used certainly eliminate the possibility of damage to the central nervous system. Clinical experience of about ten years fails to show evidence of such damage. It must be remembered that the normal erythropoietic and leukopoietic systems are much more vulnerable to damage than is nerve tissue.

I feel that the future of the program of radioactive isotopes will depend upon full cooperation of all the specialties in medicine. Such cooperative spirit has been shown here this afternoon.

HOSPITALIZED VETERANS INCREASE

According to a report by Dr. Paul R. Hawley, chief medical director for the Veterans Administration, a total of 386,614 veterans were admitted to Veterans Administration hospitals during the fiscal year 1947 as compared to 271,299 for the previous year. Patients hospitalized during the year at any one time averaged 98,600 compared to 78,900 during the previous year. Veterans Administration hospitals had 108,225 authorized beds and 101,273 available beds as of June 30, 1947, compared to 91,675 authorized and 87,369 available beds as of June 30, 1946. A total of 2,744,602 persons were given medical examinations during the fiscal year 1947 as compared to 1,036,634 during the preceding year.

Although roentgenograms play an all-important role in objectively discovering and delineating tuberculosis lesions, they will never be accurate enough to supplant sound medical judgment.—R. V. Platou, M. D., Am. Rev. Tuberc., April, 1947.

PREOPERATIVE AND POSTOPERATIVE SUPPORTIVE THERAPY IN GASTRO-INTESTINAL SURGERY

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The care of the patient before and after operation has improved tremendously in recent years. This has been made possible chiefly because of our increased knowledge and appreciation of disturbed physiology associated with surgical diseases. Although this applies to all fields of surgery, it is particularly true of surgical lesions of the gastro-intestinal tract.

Advances in anesthesia and surgical technique have kept pace with those of preoperative and postoperative care in making "surgery safe for the patient and the patient safe for surgery."

Outstanding advances contributing to a lowered surgical mortality and morbidity in recent years include (1) a greater knowledge of the importance of fluid and electrolyte balance, (2) more attention to the nutritional requirements of the patient, (3) employment of continuous gastric and duodenal suction to control distention, (4) a more general use of blood and blood substitutes, (5) a better control of infection by chemotherapeutic agents (sulfonamides, penicillin, and streptomycin), (6) more attention to the prevention and treatment of venous thrombosis, (7) better nursing care, and (8) the practice of early ambulation after operation.

There are very few lesions of the gastro-intestinal tract which are classed as extreme emergencies. At least some attention can be given to preoperative preparation even in perforated peptic ulcer and in acute intestinal obstruction during the time necessary for "setting up" the operating room.

Physicians have come to appreciate more than ever before the fact that the patient as well as the disease must be treated. The importance of the mental attitude of the patient cannot be over-emphasized. Most patients, whether they manifest it or not, have a fear and dread of an operation. It is extremely important to have the complete confidence of the patient who is about to undergo an operation. Reassurance, sympathy, kindness, and consideration may go a long way in gaining this confidence. It will insure a smoother postoperative course, diminish operative risk, and contribute to restoration of health and happiness.

With present methods of obtaining information about a patient's condition from all

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the laboratory tests at hand, physicians are apt to forget to treat him as an individual. It has been my experience that a nervous and apprehensive patient is much more likely to have a stormy postoperative course than is the more stable patient.

NUTRITION

The usual patient requiring an abdominal operation does not present the problem of malnutrition. However, it may become a major problem in patients with extensive liver damage, in obstructing lesions high in the gastro-intestinal tract, and in the presence of a high intestinal fistula. Nutritional deficiencies predispose patients to many postoperative complications. A high caloric diet rich in protein and carbohydrates should be given to these patients. Oral or tube feedings are preferable. However it becomes necessary at times to use intravenous alimentation in the form of glucose, amino acid preparations, plasma, and blood. It is important to correct any existing anemia by blood transfusions before expecting the nutrition to improve. Plasma is an excellent form of protein replacement but large quantities are necessary to furnish an adequate intake of protein.

HYPOPROTEINEMIA

Hypoproteinemia is frequently associated with obstructve lesions high in the intestinal tract because of the patients being unable to maintain their proper nutrition. This group includes many esophageal and gastric malignancies and pyloric obstruction resulting from ulcer. Patients with liver damage are particularly susceptible to hypoproteinemia, especially to a depletion of the albumen fraction, which is the important one. Ravdin and his associates[3,11] have made many valuable contributions to this important problem. Shock, pulmonary edema, and delayed wound healing may develop as a result of hypoproteinemia. Gastric and intestinal motility are definitely delayed by edema due to this condition. Edema resulting from hypoproteinemia may be sufficient to close a gastro-enterostomy stoma. The estimation of the plasma proteins is a necessary aid in the diagnosis of this condition. Dehydration is frequently associated with protein deficiency and may cause difficulty in estimating the degree of hypoproteinemia. A normal plasma protein level may be reported by the laboratory if dehydration is present. Excessive amounts of salt given to patients with lowered plasma protein may precipitate the appearance of edema.

Adequate vitamin therapy is important in the treatment of malnutrition. While parenteral vitamin therapy is indicated in some instances, it is not considered important in the usual surgical patient.

There is an increased risk associated with surgery of the obese patient, the very young and the aged patient, and in persons with cardio-vascular-renal disease and diabetes. These patients require special consideration. The internist and the surgeon should work together in their management before and after operation.

WATER AND ELECTROLYTE BALANCE

Water and electrolyte requirements of the surgical patient are of utmost importance. In recent years Coller and Maddock[5,6] have contributed much to the knowledge of this problem. It is in the field of gastro-intestinal surgery that the greatest problems of dehydration and electrolyte disturbances are encountered.

The usual patient requires approximately 3,000 cc. of fluid in twenty-four hours. The urinary output should be at least 1,000 cc. in twenty-four hours. Vomiting, duodenal suction, diarrhea, and high intestinal fistula increase the water and electrolyte requirements.

The administration of excessive amounts of fluids may be as dangerous as insufficient amounts. Pulmonary edema contraindicates the giving of large amounts of fluids. Rapid and excessive administration of intravenous fluids should be avoided in older patients and those with cardiac impairment.

There has been a definite tendency in the past to give too much saline solution. In the ordinary case in the absence of abnormal body fluid loss, very little salt is required. In the presence of renal damage, salt and water may be retained in the tissues, resulting in edema. This is particularly apt to occur when a hypoproteinemia exists. Coller has demonstrated clinical evidence of salt intolerance such as weakness, disorientation, anorexia, nausea and vomiting, distention, oliguria, and edema.

In certain gastro-intestinal lesions excessive salt loss is present and replacement is necessary. Excessive vomiting causes alkalosis due to loss of the chloride ions. Acidosis may result from excessive loss of the sodium radical and is usually seen in patients with severe diarrhea and intestinal and biliary fistulas. Blood chloride and nonprotein nitrogen levels should be obtained as an aid to the clinical diagnosis. The treatment of acidosis, or alkalosis, consists in the intravenous administration of 5 per cent glucose in normal saline solution. When the chlorides have been replaced, the glucose should

be given in distilled water. Glucose is valuable in maintaining normal kidney function and in furnishing calories.

The importance of determining the requirements of fluids and electrolytes by the clinical status and the physiologic response of the patient to the administration of perenteral fluids and not by laboratory methods is stressed by Coller and Maddock[5,6] and by Moyer.[12] Volume for volume replacement after restoration of electrolyte loss is recommended.

ANEMIA

Anemia predisposes a patient to shock and to most postoperative complications. It should be corrected by blood transfusions before operation.

SHOCK

The incidence of shock associated with operations has been reduced tremendously. This is due in part to a more painstaking preoperative care of the patient, including correction of dehydration, relief of distention, correction of anemia, and more attention to the nutritional requirements and to the handicapped patient. Improved surgical technique, including gentleness in handling tissues, avoidance of trauma and undue exposure of viscera, and more careful hemostasis and improvement in anesthesia are of equal importance in reducing the incidence of shock. The almost routine use of intravenous fluids during a major operative procedure and the more frequent use of blood transfusions before, during, and after operation have helped to reduce the incidence of shock to a minimum. The above measures have almost replaced the use of drugs in the treatment of shock. The chief indication for the use of ephedrine and epinephrine is found in restoring the blood pressure level following spinal anesthesia.

The services of a well qualified M. D. anesthetist in operations of considerable magnitude cannot be over emphasized.

Allen[1] has emphasized the importance of rest before an operation is performed. He reminded that many surgeons have no hesitation in subjecting patients to a serious operation in a state of fatigue and general debility with little or no thought of the effect of super-imposed trauma. Too often a patient is admitted to the hospital late in the day for a serious operation early the next morning. Allen stated that in casting about for the reason why such a patient has done poorly after operation the last thought is usually the obvious one "a tired horse has been entered in a race." This may be the chief cause of disaster. Admitting a patient to the hospital several days before a serious operation, so that he can adapt himself to the hospital environment and can rest and be prepared properly, may mean the difference between a smooth and a stormy convalescence or even between life and death.

It should be mentioned in passing that rest for the surgeon may be just as important as it is for the patient. Wangensteen pointed out that fatigue undermines the surgeon's efficiency and that after some operations of great magnitude the surgeon occasionally stands in greater need of postoperative treatment than the patient.

Pre-anesthetic medication is important in the preparation of the patient for operation. Barbiturates, opiates, and atropine should be given at the proper time to insure a proper state of sedation at the time of operation. Older patients frequently do not tolerate opiates or barbiturates well. Over sedation must be avoided.

As soon as the patient reacts from the anesthetic, he should be encouraged to take frequent deep breathing exercises and to move his arms and legs at frequent intervals. He should also be frequently turned from side to side.

In discussing preoperative and postoperative treatment the importance of good nursing care cannot be stressed too strongly.

BILIARY TRACT SURGERY

An important factor in the lowered mortality rate in biliary tract surgery has been the carefully planned preoperative and postoperative care based on a better knowledge of disturbed physiology in biliary tract disease.

Acute cholecystitis requires close observation. Many of these patients reach the surgeon when the acute process is several days old. It occurs frequently in the older age group and with other complicating diseases. Attention must be given in many instances to the correction of dehydration, distention, and infection.

In the presence of jaundice from common duct obstruction the liver must receive special attention. It may require considerable time to prepare the patient for operation. The depth of the jaundice and the bleeding tendency must be evaluated. A diet rich in carbohydrates and proteins should be given to these patients. Blood transfusions are frequently indicated in the jaundiced patient. Evidence of hepatic and renal failure must receive careful study.

Clinical and experimental studies have proved that the underlying cause of bleeding tendency in jaundice is the reduction in prothrombin concentration of the blood and that

this can be corrected by therapy with vitamin K.

SURGERY OF STOMACH AND DUODENUM

In no field of surgery is preoperative and postoperative care of more importance than in surgery of the stomach and duodenum. The relative safety of operation in these cases is due in a large part to improvement in preoperative and postoperative care. Physiologic disturbances are frequent and important in these patients. Proper preparation decreases the risk of operation and makes the technical procedure less difficult.

Prior to operation it is important to determine the degree of obstruction, the state of dehydration and electrolyte balance, the body store of protein, the general nutrition, and the degree of anemia. Any deviations from normal should be corrected. The Wangensteen suction apparatus is extremely useful in relieving the obstruction and reducing the edema and dilatation of the stomach. Blood transfusions, plasma, and amino acid preparations may be used to correct the lowered plasma protein. It is important until fluids can be taken by mouth to keep the stomach empty after operation by use of the Levine tube or the Wangensteen suction apparatus.

PERITONITIS

Considerable difference of opinion exists in regard to the treatment of acute appendicitis with generalized peritonitis. In the case seen several days after onset with extreme toxicity and distention I subscribe to the Ochsner[16] plan of conservative treatment in an attempt to aid nature in localizing the infection. This principle of deferred treatment implies that an operation will eventually be performed.

Important points in the treatment of peritonitis in general, whether it is due to appendicitis or to other causes, include (1) decompression with constant suction, (2) maintenance of fluid and electrolyte balance, (3) oxygen therapy, (4) morphine, (5) avoidance of the use of drugs such as prostigmine and pitressin, (6) blood transfusions, (7) the use of sulfonamides, penicillin, or streptomycin, and (8) close observation for signs of localization of infection.

The diagnosis of residual abscess is not difficult if the physician will only consider the possibility of its occurrence (Ochsner[15]). A persistent temperature elevation and leukocytosis should lead the physician to suspect an intraperitoneal abscess. Pressure symptoms about the rectum or bladder associated with a diarrhea should direct attention to the probability of a cul-de-sac abscess. Repeated rectal examinations should be made in order to detect these infections. When fluctuation has developed, drainage should be instituted through the rectum in the male and either through the rectum or the vagina in the female. Other frequent sites of localized abscess formation are the right iliac fossa and the subphrenic space. Once an abscess has formed, bacteriostatic drugs are of little value and drainage is necessary.

ACUTE INTESTINAL OBSTRUCTION

Wangensteen suction and the Miller-Abbott tube have been of tremendous value in the management of acute small bowel obstruction. The incidence of enterostomy for this condition has been reduced to a minimum since the introduction of these methods of decompression. If the diagnosis of acute intestinal obstruction has been established and the obstruction has been present less than twenty-four hours, immediate operation should usually be done. If the obstruction is more than forty-eight hours old, preoperative preparation becomes necessary. If a diagnosis of strangulation obstruction is made, immediate operation must be carried out regardless of the duration of the obstruction (McKittrick[10]).

Preoperative measures, in addition to decompression, include restoration of water and salt balance, blood transfusions, plasma, and amino acid preparations. These measures should be employed in an attempt to improve the patient's condition so that the cause of obstruction can be relieved, if at all possible, at the time of operation.

SURGERY OF COLON

Important advances in the preoperative preparation of patients for colon surgery have been made in the last decade. The use of sulfasuxadine and sulfathaladine have added much to the safety of operative procedures on the colon. They definitely reduce the coliform organisms (Poth[17]) and aid in reducing the bulk of the stool. Obstruction is a prominent symptom in colon lesions. As soon as a patient enters the hospital, efforts to empty the gastro-intestinal tract should begin. If obstruction is present, repeated enemas are necessary. Laxatives may be used cautiously. Cecostomy or proximal colostomy may be necessary to relieve the obstruction. Mechanical cleansing of the bowel is probably just as important as the sulfa drugs in rendering the colon as clean as possible before operation. Blood transfusions are especially valuable in the preparation of these patients for surgery. The diet should be of low residue and high caloric

value. As a result of improved methods of preparing patients for operation on the colon, more and more resections with primary anastomosis are now being performed with relative safety.

POSTOPERATIVE COMPLICATIONS

Many postoperative complications can be prevented by employing proper preoperative preparation, by a carefully selected and administered anesthetic, and by meticulous surgical technique, paying particular attention to careful hemostasis, asepsis, and gentleness in handling tissues.

Early ambulation in abdominal surgery has received much attention in recent years.[4, 9]

I believe most surgeons will agree that they have kept patients in bed too long in the past. The chief reason for this practice was to assure proper wound healing. Experiences of the last few years indicate that the incidence of wound disruption is not greater but is actually less following early ambulation.

The incidence of atelectasis, pneumonia, urinary retention, and distention is less as a result of early rising after operation. Thrombophlebitis seems also to occur less frequently.

Obvious contraindications to early ambulation are shock, extreme debility, peritonitis, and insecure wounds.

Surgeons must exercise sound judgment in the practice of early ambulation and not become over-enthusiastic in its use. In those patients who are unable to get out of bed, frequent movements of the arms and legs, frequent deep breathing exercises, and turning in bed should be encouraged.

DISTENTION

General preventive measures for the control of distention have already been considered. The Wangensteen suction apparatus should be employed prophylactically in cases in which distention is anticipated. Fluids by mouth should be withheld until peristalsis has been resumed. Orange juice and carbonated drinks cause excessive gas and should not be given to the patient immediately after operation. Parenteral fluid replacement is essential in the treatment of distention. Cathartics should not be administered and enemas should be withheld for at least three days after a laparotomy.

Pitressin and prostigmine are considered of limited value only and should not be used routinely. They are contraindicated in the presence of peritonitis and obstruction. Morphine has been shown to increase the tone and peristaltic action of the intestine.

WOUND DISRUPTION

Wound disruption is a serious complication. Fortunately the incidence seems to be definitely decreasing in recent years. This is due largely to better preoperative care, more attention to nutrition, to correction of anemia, and to control of distention. The mortality rate is reported as being from 30 to 45 per cent. The underlying condition of the patient greatly influences the prognosis in these cases.

The type and location of the incision, the suture material and thoroughness of closure are all important in preventing wound disruption. Transverse incisions are less apt to disrupt than are longitudinal incisions. McBurney incisions rarely ever disrupt. I have never seen a disruption of a McBurney incision.

Disruption is recognized by a profuse sero-sanguinous drainage from the wound. This is usually the first sign and occurs most frequently from the fifth to the eighth postoperative day. Close observation of the wound will enable the surgeon to recognize disruption before it is complete and to institute proper treatment. Upper abdominal incisions are more apt to disrupt than are those in the lower abdomen. They occur more frequently in winter months, suggesting the importance of respiratory infection and cough as an etiologic factor. Excessive intra-abdominal pressure, whether from cough, vomiting, or distention, appears to be the most important cause of wound disruption. Systemic factors such as anemia, hypoproteinemia, and hypovitaminosis may be contributing causes.

In cases of disruption without evisceration conservative treatment by strapping the wound edges together rather than routine immediate secondary closure is recommended in the poor risk patient. Such conservative treatment implies that suture of the wound will frequently be done later when the patient's condition has improved. The mortality rate following immediate secondary closure in 21 cases I reported[7] was 33 per cent. With conservative treatment by wound strapping in 10 cases the mortality was 10 per cent.

Sodium pentothal is an excellent anesthetic agent for secondary closure. Wangensteen suction for relief of vomiting and distention is an important prophylactic measure.

PULMONARY COMPLICATIONS

Atelectasis is the most common postoperative pulmonary complication following gastro-intestinal surgery. It occurs ten times as frequently as pneumonia following opera-

tion. It occurs usually in the first three or four days after operation. It may develop after any type of anesthesia. The type of operation and not the anesthetic is usually responsible. Upper abdominal operations are frequently followed by atelectasis. Specific preventive measures include avoidance of over sedation and tight abdominal dressings. Deep breathing and frequent change of position should be encouraged. Treatment consists of efforts to remove the obstruction to the bronchus. Coughing may be all that is necessary. Catheter suction or bronchoscopy may be necessary in some cases. Oxygen is valuable if difficulty in breathing or cyanosis develop.

THROMBOPHLEBITIS AND PHLEBOTHROMBOSIS

In recent years there has been a great revival of interest in the treatment of venous thrombosis. Physicians now realize that thrombosis is just as serious a problem in medical diseases as it is in surgical diseases.

The dangers of fatal pulmonary emboli and the disability frequently seen as a result of thrombophlebitis make venous thrombosis one of the most important problems following operation. Prevention remains the most important phase of management of venous thrombosis.

Outstanding contributions have been made in recent years in the treatment of this condition. They include paravertebral lumbar sympathetic blocks,[14] especially if there is associated arterial spasm, anticoagulant therapy using dicumerol and heparin[8, 13] and femoral vein ligation.[2]

Further experience is necessary to evaluate properly the relative merits of these newer methods of treatment of venous thrombosis.

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GASTRO-INTESTINAL SYMPTOMS IN DISEASE OF THE URINARY TRACT

A Radiological Report

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Perhaps in no branch of radiology is it more necessary to work in close cooperation with the clinician than in the field of urology. The correlation of clinical data with the interpretation of the radiograph is necessary in the proper evaluation of all pathologic conditions, and the genito-urinary system is no exception. In the interpretation of radiographs of the genito-urinary system, the radiologist should be ever mindful of the following questions: What signs or symptoms caused this patient to see the physician? How have these symptoms progressed? Does this patient's symptomatology arise from the genito-urinary system, or is it referred to some other organ or system? What pathologic process is occurring in this patient's urinary system, and how will it be manifest in the radiograph?

The scope of this paper is limited to that group of patients who see their physicians for gastro-intestinal complaints, frequently vague, occasionally specific, which on careful examination are found to be the result of disease of the genito-urinary system. Because their presenting symptoms are largely gastro-intestinal, these patients are usually referred to the radiologist for examination of the gastro-intestinal tract, which is usually found to be essentially normal. Only then are other symptoms suspected and investigated, and not frequently these patients are treated for several weeks or months for the gastro-intestinal complaints before they are again referred to the radiologist for re-examination of the gastro-intestinal tract, in spite of the previous negative examination.

The most common gastro-intestinal complaints encountered in our cases include: indefinite epigastric or abdominal pain, usually dull, and recurrent; epigastric discomfort; borborygmi, nausea, vomiting, indigestion, and pyrosis. When these symptoms are as-

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sociated with symptoms directly referable to the urinary system, such as dysuria, gross hematuria, and frequency, the clinician is led to investigate the urinary tract at the onset. We are concerned here with that group of patients in which the common genito-urinary complaints are absent; in patients with gastrointestinal symptoms who are referred to us for radiologic examination of their gastro-intestinal tract, usually the stomach, duodenum, or small intestine.

Anatomically, there is a common sympathetic nerve innervation of the kidneys, upper third of the ureters, stomach, and upper gastro-intestinal tract. The principal nerve fibers arise from the solar or celiac plexus, composed of the semilunar, superior mesenteric, and aortico-renal ganglia. The secondary nerve innervation includes the major, minor, and inferior splanchnic nerves and occasionally fibers from the vagus. The aortico-renal ganglion gives off fibers which with fibers from the celiac ganglia and aortic plexus form the renal plexuses. These plexuses pass along the renal arteries, one to each kidney, into the substance of the kidney, and along the upper portion of the ureters. From the same celiac plexus and subordinate ganglia are derived the fibers to the stomach, liver, adrenals, pancreas, and the major portion of the small bowel. Whether or not this analogous innervation from the sympathetic nervous system explains the relationship between the gastro-intestinal system and the genito-urinary tract is open to question, but it does offer a possible explanation for the nausea, vomiting, epigastric pain and indigestion so frequently observed in pathologic conditions of the urinary system.

The most common diseases of the genito-urinary system producing symptoms referable to the gastro-intestinal tract are usually found in the kidneys and upper third of the ureters. They include (1) renal tuberculosis, (2) congenital polycystic disease, (3) nephrolithiasis, (4) hydronephrosis, (5) renal ptosis, and (6) rarely, tumors of the kidney. Recent case examples each involving a different type of renal pathology are herewith reported.

CASE REPORT

CASE 1.—A 38-year-old white woman was first seen because of weight loss, fatigue, nausea, and loss of appetite with occasional periods of vomiting during the previous eighteen months. She had no fever, no dysuria, no hematuria, nor symptoms relative to the urinary system. Several routine examinations including routine urinalyses were negative. Complete radiologic examination of the gastro-intestinal tract was negative. At our recommendation an intravenous pyelogram which was done to exclude the kidney, ureter, and bladder revealed a complete lack of filling of the left kidney. After further intensive search and repeated examinations tubercle bacilli were found in the urine, with only an occasional red blood cell.

The clinical picture of renal tuberculosis is not as clear cut as that of other diseases involving the kidneys, as not always are the complaints which bring the patient to the physician concerned with disturbances of the urinary system. It was formerly taught that persistent pyelitis and hematuria accompanied all cases of renal tuberculosis. Recent investigation has shown that at least in 25 per cent or more of cases this is not so, particularly in the mild, insidious forms in which the predominant features are intermittent nausea, fatigue, malaise, impairment of appetite, weight loss, and vague abdominal discomfort. Roentgen studies of the lungs are always important at arriving at a diagnosis, utilizing stereoscopic views in the search for a tuberculous focus.

CASE 2.—A 44-year-old white man was referred to us for radiologic examination of the stomach and small intestine because of an intermittent dull pain in the epigastrium associated with a transient nausea of about six months duration. The patient thought the pain was somewhat relieved by food, and he had been on a modified ulcer diet for several weeks without a significant change in symptomatology. No attempt had been made to examine the kidneys or ureters as the patient's complaints pointed to the stomach or duodenum or upper digestive tract. After roentgen examination of the gallbladder, a gastro-intestinal series, and liver function tests showed normal results, an intravenous pyelogram was recommended and a bilateral hydronephrosis was found.

The symptoms most frequently seen in chronic hydronephrosis are slow and insidious. Pain may be a solitary symptom. This pain may be recurrent and simulate the periodic pain of peptic ulcer. The reflex gastro-intestinal symptoms produced when the large dilated kidney presses on the second portion of the duodenum or adjacent structures are varied. Vomiting, nausea, distention, indigestion, and epigastric tenderness may point to the diagnosis of peptic ulcer, or in acute cases even to intestinal obstruction. Congenital polycystic disease may produce similar symptoms after the kidneys have increased in size sufficiently to produce pressure on adjacent structures.

CASE 3.—A 48-year-old white man had had symptoms of pain in the right lower quadrant typical of renal calculus for a few hours ten years previously. The physician who saw him at that time told him he had a stone in the right kidney, and later demonstrated a small calculus in the right kidney on the radiograph. The patient had no more pain or other symptoms following the short episode until the past year, when he developed vague intermittent gastro-intestinal complaints. His physician, unaware of the previous history of calculi referred the patient to us for a study of the gastro-intestinal tract, which was negative. However, on the flat plate of the abdomen, the right kidney was filled with numerous calculi and there were several calculi in the left

kidney. For ten years this patient had carried calculi in one or both kidneys with no symptoms at all, and no more than vague intestinal symptoms during the preceding six months.

It is rare that the only symptoms of renal calculi are those involving or referred to the gastro-intestinal tract. There appears, however, no direct relationship between the number of stones, the amount of destruction of kidney parenchyma, or the severity of the infection in a kidney and the extent and severity of the symptoms. All radiologists have seen small calculi causing violent symptoms and likewise heavy calculi frequently producing only vague complaints.

CASE 4.—A 64-year-old woman was admitted to the hospital, complaining of nausea, vomiting, weight loss, postprandial epigastric pain, indigestion, gas, pyrosis, and vague pains in the shoulders and hips. She had been known to be diabetic for fifteen years and was well controlled on moderate daily doses of insulin. Several clinicians saw the patient and made the clinical diagnosis of gastric ulcer, probably malignant, and diabetic neuritis. The gastro-intestinal series was negative, but during fluoroscopic examination numerous moderately sized circumscribed areas of increased density were seen diffusely scattered throughout both lung fields. Chest films demonstrated a diffuse spread of cannonball type metastatic lesions, such as were frequently seen from hypernephroma. Kidney function tests and urinalyses were repeated and, as previously, were found negative. Flat plate of the abdomen revealed a small rounded area of calcification overlying the region of the right kidney. Intravenous and retrograde pyelograms revealed a small pressure defect associated with the area of calcification slightly displacing the middle and lower right calices. In spite of the presence of what we believe to be a hypernephroma with calcification, and in spite of multiple pulmonary metastases, this patient had no symptoms referable to the kidneys or urinary system, not even to the lungs. Her symptoms were exclusively referred to the upper gastro-intestinal tract, which was radiologically normal.

Tumors of the kidney do not usually produce gastro-intestinal symptoms. However, the kidney cannot be excluded in the face of negative urinalysis and the absence of renal symptoms. Kidney lesions may become sufficiently large to produce pressure symptoms, and malignant lesions of the kidneys may go unnoticed until they metastasize to lungs, bone, or other organs. Renal ptosis is a common and frequent kidney condition producing mild gastro-intestinal symptoms.

SUMMARY

Lesions of the upper genito-urinary tract can frequently exist without presenting urinary symptoms, and be masked by symptoms referable to the upper digestive system. We believe that a distinct responsibility resolves upon the radiologist to insist upon a thorough examination of the genito-urinary system in those cases which have been proved negative from a gastro-intestinal standpoint and in which the possibility of disease of the urinary system has not been completely eliminated. We have attempted to explain this relationship by the analogous nerve innervation between the kidney and upper third of the ureters and the stomach and small intestine, and have presented case examples of patients having gastro-intestinal symptoms with various diseases of the upper genito-urinary tract.

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ABSTRACT OF DISCUSSION

Dr. Tom B. Bond, Fort Worth: Any discomfort in the abdomen is attributed by the patient to his stomach or bowels. In other words, it is either indigestion or colon trouble. The patient goes to the physician with a diagnosis already made in his mind. In not more than 10 per cent of the cases is the pathologic condition located in the stomach. Pain in the abdomen means very little as to the location of the pathologic condition or the involved organ. A strangulated right inguinal hernia may produce symptoms of pain in the upper left quadrant. At present, a physical examination would hardly be considered complete without a roentgen study of the genito-urinary tract. This should include a preliminary film of the urinary tract, and in many cases an intravenous pyelogram. A gallbladder study is also usually a routine procedure.

TOOTHPICKS SWALLOWED

A patient who had to be operated on because he had apparently swallowed a toothpick along with his club sandwich led Thomas J. Snodgrass, M. D., from the Pember Nuzum Clinic of Janesville, Wis., to comb medical literature for similar case histories. In the October, 1947, *Archives of Surgery*, he reports that toothpicks in the intestinal tract seem to be the least of a surgeon's worries: his total collection numbers no more than 20 cases.

Dr. Snodgrass does sound a note of warning for those who wear artificial dentures, however: they make up a large proportion of the toothpick-swallowers who must undergo surgery. In most cases the dentures seem to have allowed the patients to ingest the toothpick without feeling it in their mouths.

Thirteen of the 20 toothpick cases were diagnosed as acute appendicitis, and in 10 cases an abscess was present. In 13 cases the source of the foreign body was unknown. The 2 most extraordinary cases were probably those of a little girl who somehow managed to swallow a toothpick while drinking a glass of water and of a man who regularly fell asleep after dinner with a toothpick in his mouth, relying on his wife to remove it. Another man identified his particular splinter of wood as being part of his spaghetti seasoning.

A final diagnosis of tuberculosis should not be made on the first x-ray film, since a disturbing number of cases showing definite infiltrations of the lung fields will be found to have cleared completely on a re-examination two weeks later.—Joseph D. Wassersug, M. D., New England J. Med., July 13, 1947.

COLOSTOMY CLOSURE

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Until recently the surgical procedure of closing a Mikulicz colostomy was well standardized. The spur was eradicated by spur-crushing clamps; and after an interval the colostomy was closed by dissecting it free of the skin, fat, and deep fascia down to the peritoneum, and then closing over the stoma with one or two rows of absorbable suture. Great care was taken not to open the peritoneum, for the bowel was not prepared preoperatively and any soiling of the peritoneal cavity might result in peritonitis.

Many of these wounds became infected and the closed stomas not infrequently broke open to form fecal fistulas. It was not uncommon to do two or sometimes three operations before successfully closing some of the colostomies. Postoperative abdominal discomfort and obstruction occasionally resulted because of the angulation of the bowel caused by its fixation to the anterior abdominal wall. Postoperative incisional hernias sometimes occurred because of the poor closure of the wound in these extraperitoneal procedures. This paper is based primarily on 33 consecutive cases of colostomies closed by an intraperitoneal technique which has practically eliminated the complications just mentioned. This series consisted of Mikulicz and simple loop colostomies closed in a general hospital in England during the war. Except for 1 fecal fistula and 2 wound infections, there were no postoperative complications.

The colostomies were made in forward hospitals for injuries of the colon and the patients were evacuated to this hospital for closure. At this time it was the practice to make simple no-spur loop colostomies for antimesenteric lesions of the bowel and to form a double barrel spur or Mikulicz colostomy for wounds involving the mesocolon or mesenteric border of the colon. Wounds of the pelvic colon and rectum were repaired and a proximal loop colostomy made. Most of the colostomies in this series were of the Mikulicz type. There were 7 other colostomies not included in this series which were not closed because of other wounds requiring immediate evacuation to the United States.

The same preoperative and postoperative treatment was carried out in all 33 cases and the surgical procedure was identical in all cases. A routine of treatment was made easier by having these cases segregated in a "colostomy ward."

Read before the Section on Surgery, State Medical Association of Texas, Annual Session, Dallas, May 7, 1947.

TECHNIQUE

As soon as the edema of the stoma and spur had subsided sufficiently (usually two weeks after the colostomy was established), forceps were applied to crush the spur. Two curved hysterectomy forceps placed in parallel were used for this purpose. Standard spur-crushing clamps were not available, and hysterectomy forceps were preferred to Kocher or the shorter curved Kelley forceps because of the longer and more resilient blades which allowed a large bite to be taken on the spur without crushing it too much when tightened to the first notch. They were then tightened a notch each day until they fell off on the fifth or sixth day. Two or three applications of these clamps were necessary to eradicate the spur completely, with intervals of two weeks between applications to allow the edema to subside. Frequently clamps could be applied to the loop colostomies when it could be ascertained by palpation that no mesenteric vessels or small bowel was interposed between the limbs of the colon.

After the spur had been completely cut away or, in the case of loop colostomies, when the edema had subsided, the patients were placed on the preoperative routine, which consisted of sulfaguanadine 4 Gm. every four hours for the first day followed by 2 Gm. every four hours for six days. Succinylsulfathiazole was not available at this time. The patients were given a low residue, high protein diet, with Multicaps and 100 mg. of ascorbic acid daily as vitamin supplements. On the day prior to surgery the diet was changed to a nonresidue liquid diet with 2 units of plasma intravenously to supplement the protein reserve. The patients were given one or two soapsuds enemas on the day prior to surgery to cleanse thoroughly the distal colon and rectum, and both loops of the colonic stoma were irrigated with tap water in the morning and evening followed by aspiration of the fluid from the stoma.

Closure of the colostomy was performed in most instances under spinal anesthesia. Occasionally a general anesthetic, nitrous oxide and ether, was used. An incision was made on either side of the colostomy passing through the scar of the previous incision. An incision encircling the stoma was then made, joining these two, and leaving a cuff of skin and fat attached to the bowel. With two fingers of the left hand in the stoma to aid dissection, the incision was carried down to the deep fascia. The fascia was freed of fat and incised around the stoma, leaving a cuff of fascia attached to the bowel. The in-

cision was then continued through muscle and peritoneum, care being taken to avoid injury to the bowel in the dissection, and leaving a small rim of peritoneum adherent to the colon. The fully mobilized bowel was then drawn out of the wound, isolated with salt packs, and the stoma and colon dissected free of scar tissue. The eversion of mucosa at the stoma was freed up by blunt dissection and the cuff "unrolled." The edges of the stoma were trimmed with sharp scissors and closed transversely to the long axis of the bowel. If a larger lumen was required, an incision was made in the longitudinal axis of the colon on either side of the stoma before closing transversely. This plastic procedure was frequently used for loop colostomies when spur crushing was not possible. Two rows of continuous chromic catgut were used, the first row a Connell suture, the second a running Lembert. The closed bowel was then dropped back into the peritoneal cavity, 10 Gm. of sulfanilamide placed intraperitoneally, and the wound closed in layers. A piece of rubber tissue dam was placed subcutaneously to be removed in twenty-four hours.

Postoperatively, the patients were given sulfadiazine and penicillin for seven days. Sodium sulfadiazine was given intravenously 5 Gm. daily until oral feedings were started; then sulfadiazine was administered by mouth. A Levin tube was passed and gastric suction maintained until the patients passed flatus per rectum. Parenteral fluids from 3,000 to 4,000 cc. a day including 2 units of plasma for the protein requirement, were given during this period. The patients were encouraged to be active in bed, and leg and arm exercises were given. As soon as they started passing flatus, suction was discontinued and they were started on a liquid diet, which was increased to a low residue diet the following day. Mineral oil was given twice daily when food was started by mouth. Enemas were seldom necessary and were given only as a low enema when digital examination of the rectum showed the need. Usually the patients had a soft stool on the fourth to sixth day. They were allowed to

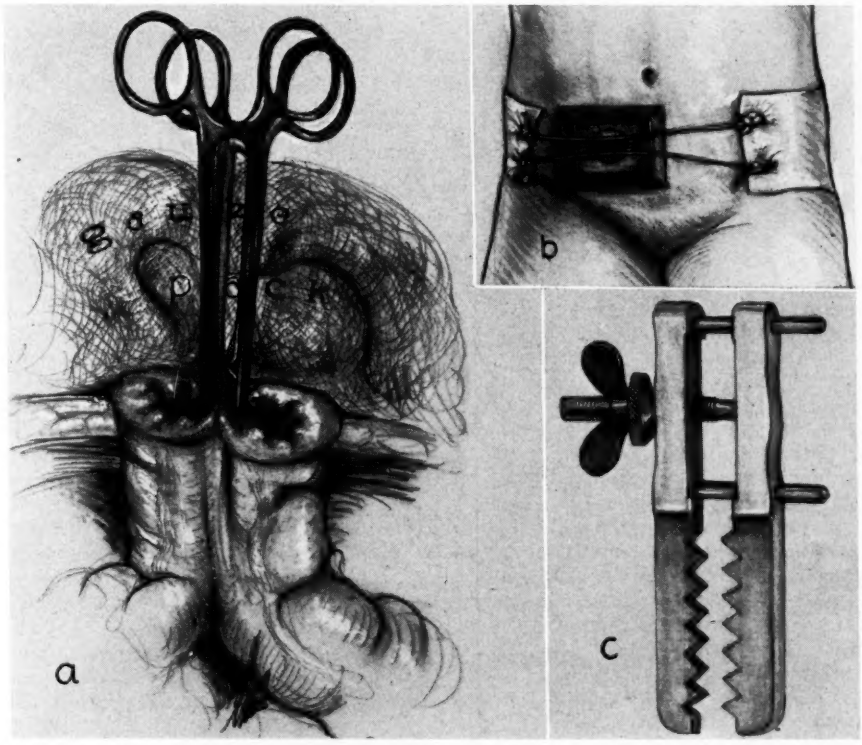

FIG. 1*a*. Two curved hysterectomy clamps with blades parallel are used to crush the spur.
b. The hysterectomy forceps are supported in a vertical position with gauze packing and a small cardboard box, held in place with tie-tapes.
c. A new spur-crushing clamp, described by Wolfson, which has the advantage of large interdigitated teeth which will prevent slipping.

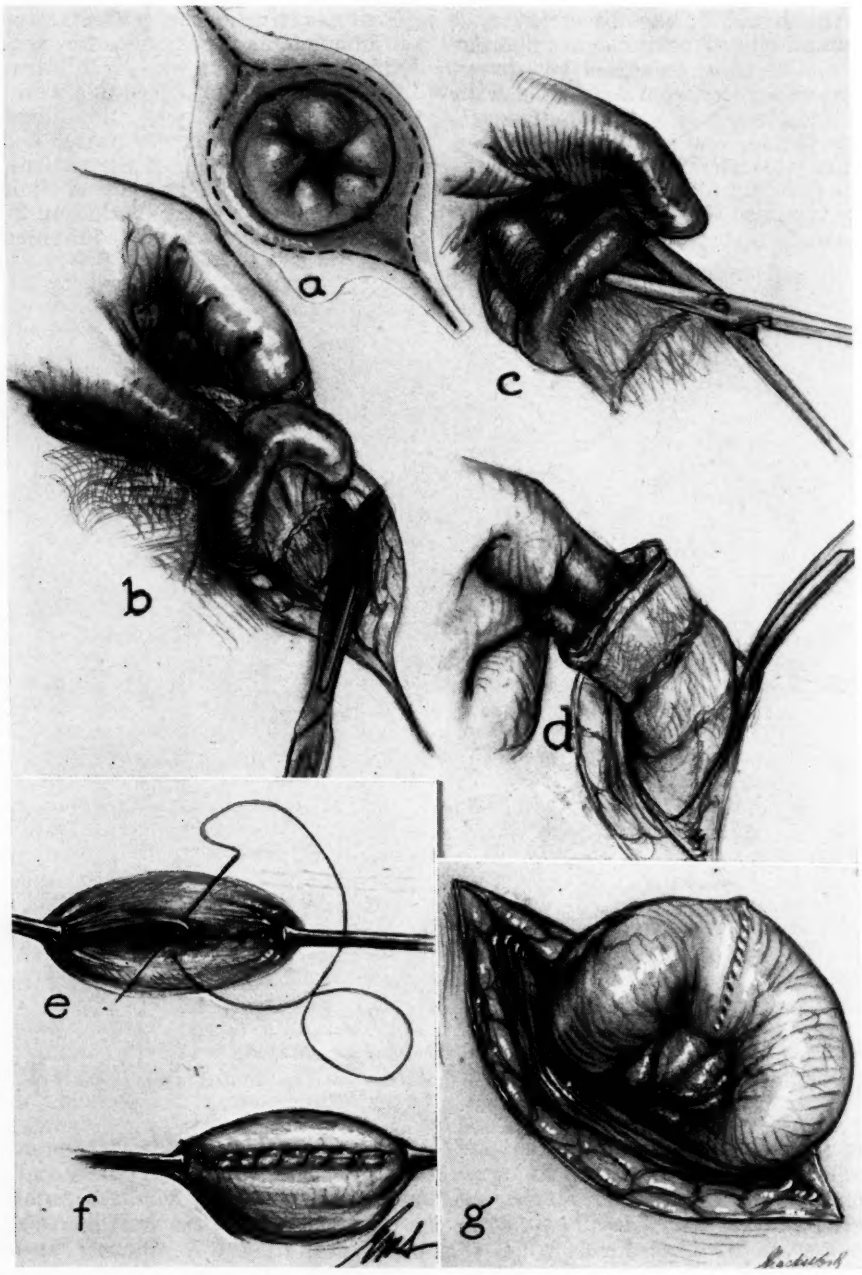

FIG. 2. Steps in dissecting the stoma free of the abdominal wall and peritoneum: *a*. The skin incision. *b*. Dissection carried through the fascia, leaving a rim of fascia adherent to the bowel. *c*. The everted mucosal "cuff" is unrolled by blunt dissection, providing additional bowel wall for anastomosis. *d*. Incision carried through the peritoneum, leaving a rim of peritoneum adherent to the bowel. The colon is now completely mobilized and can be drawn out of the wound. Scar tissue and adherent fascia and peritoneum are then removed from the serosal surface of the bowel by sharp dissection.

e, f. Anastomosis is made in the transverse diameter of the bowel, using a Connell suture followed by a continuous Lambert suture for the second row. No. 000 chromic catgut is used for both rows.

g. The closed loop of bowel is dropped back into the peritoneal cavity and the abdominal wound is closed in layers.

be up and out of bed on the seventh or eighth day.

There were three postoperative complications in this series of 33 cases. A fecal fistula resulted in 1 of the first cases treated, due to an error in postoperative treatment. The patient was allowed to eat on the second postoperative day (gastric suction was not used), and he became distended and developed a well localized intraperitoneal abscess at the site of the incision. A fecal fistula resulted, which closed spontaneously after a few weeks, with normal passage of stool by rectum. This accident could have been prevented by the prophylactic use of gastric suction to prevent distention.

The other postoperative complications consisted of 2 small localized wound infections which responded readily to drainage by removal of one or two skin sutures and the application of hot packs. Both wound infections involved only the subcutaneous tissue.

DISCUSSION

Techniques similar to the one outlined have been described by Dixon,[3] Keene,[4] and others. It was in common usage among the general hospitals in England during the war. The chief improvement over the old technique has been intraperitoneal closure which has permitted complete freeing and mobilization of the colostomy loop, easy excision of scar tissue and a much more satisfactory anastomosis. The preoperative and postoperative treatment is similar to that described by Poth[8, 9] for resection of the colon with end-to-end anastomosis.

Certain precautions should be stressed in regard to crushing of the colostomy spur. Cattell[2] and C. W. Mayo[5] have reported the complications of hemorrhage, perforation of the colon, and small bowel fistula from hasty or injudicious application of clamps. Careful palpation before and during application of the clamps is essential, as well as the creation of an adequate spur at the time of the colostomy. Several new crushing clamps have been described by Wolfson,[11] C. H. Watt,[10] and Berger.[1] The clamp described by Wolfson and made by Sklar seems particularly desirable because the interdigitated teeth prevent slipping of the clamp and permit a larger bite to be crushed with each application. One fault of many of the older clamps has been the tendency to slip when applied to the spur, necessitating repeated applications before the spur was eliminated.

The use of succinylsulfathiazole, as described by Poth[8,9] and others, is certainly more desirable than sulfaguanadine because of its lesser toxicity and greater bacteriocidal effect on the coliform organisms. It would also seem to be of advantage to employ the postoperative use of succinylsulfathiazole or sulfathaladine. The use of penicillin for at least the first four or five postoperative days seems warranted to prevent wound infection and to give additional protection to the peritoneum. Delayed closure of the subcutaneous tissues has been practiced by Pemberton,[7] but very little wound infection (2 cases) was encountered by primary closure in this series.

The use of the Miller-Abbot tube has been advocated by Newton and Blodgett[6] at Peter Bent Brigham Hospital in the preoperative and postoperative care of colon resections with end-to-end anastomosis, but I found that the prophylactic use of gastric suction alone controlled postoperative distention. It has been shown that 80 per cent of the gas in the intestine is swallowed air, so gastric suction if applied before distention takes place will control it effectively. Prostigmine and pitressin should not be used in these cases as the resulting stimulated peristalsis might endanger the anastomosis.

Thorough cleansing of the distal bowel segment prior to surgery is important. If there is any obstruction distal to the anastomosis, whether it is feces, inspissated barium, or stenosis due to bowel injury, a blow-out at the anastomosis is likely to result. If there has been injury to the colon or rectum distal to the colostomy, patency should be assured by barium enema study. Enemas and irrigations should be given immediately afterward to wash out the remaining barium. On the day prior to surgery one or more enemas and irrigations should be given to remove thoroughly any remaining stool. The proximal loop is irrigated at the same time, but particular attention is given to cleaning out of the distal segment. A digital examination of the rectum should be made on the morning of surgery to be assured that the rectum is empty.

Edema of the mucosa and inadequate crushing of the spur are two contraindications to closure. Attempts at closure while the bowel wall is edematous will result in tearing of the sutures and an imperfect anastomosis. At least fourteen days should elapse from the time of the last application of clamps before closure is attempted. All of the spur should be eradicated before closure to prevent angulation of the bowel, as well as to insure adequate lumen at the anastomosis. Failure to cut the spur out completely may result in obstruction and a blowout at the anastomosis.

Loop colostomies with no spur should be closed as soon as possible while there is little scar tissue formation. Anastomosis of the

antimesenteric opening in the transverse diameter is usually possible. If a larger lumen at the site of the anastomosis is desired, the opening may be enlarged in the longitudinal axis of the bowel and sutured transversely, as has been mentioned. If much scar tissue is present and it cannot be removed by dissection, resection of the loop and end-to-end anastomosis is required.

Resection was not necessary in any of the 33 cases discussed, although the plastic procedure mentioned was used in a few of the simple loop colostomies. In several of the loop colostomies in this series, clamps were applied to reduce a spur even though it was known that the limbs had not been approximated by suture. This method provided an adequate lumen at the time of closure, but should be attempted with caution and only when the surgeon can be assured by palpation that no small bowel or mesentery lies between the limbs of the colostomy. It is a good precaution to examine the colonic stoma about four hours after the clamps have been applied. If any mesenteric vessels have been caught in the clamps, the mucosa will be blanched and pale. Prompt removal of the clamps may permit return of circulation and viability of the bowel, provided the clamps have not been applied too tightly.

The low residue diet given preoperatively cuts down appreciably the quantity of stool. A nonresidue diet the day before surgery insures an empty colon the day of operation and since the patient is on parenteral fluids for from three to four days postoperatively, an empty and relatively sterile colon is assured for the immediate postoperative period. The continuation of a low residue diet postoperatively with the administration of sulfathaladine or succinylsulfathiazole, as recommended by Poth, will extend the period of "relative sterility" during the period of healing of the anastomosis. It is essential that the diet of the patient include at least 100 Gm. of protein daily while he is on this low residue diet, and he should have intravenous proteins during the time he is on intravenous fluids to prevent depletion of his protein reserves. This can be supplied by amigen or, if necessary, by plasma or blood, as was done in these cases.

Some surgeons have advocated resection of the exteriorized loop with immediate end-to-end anastomosis. Keene reported 8 cases treated in this manner at an Army general hospital in this country. One of these cases developed obstruction at the site of the anastomosis. Resection of the large bowel with immediate end-to-end anastomosis will cause more narrowing of the anastomotic site, especially in the left colon, than will the modified Mikulicz procedure described. There is also the danger in a resection with end-to-end anastomosis of necrosis at the suture line because of faulty blood supply. The Mikulicz procedure is free of this objection because the mesenteric border of the bowel is not disturbed during the closure. The procedure is technically easier than end-to-end resection and carries a mortality of less than 1 per cent when performed with proper preoperative and postoperative preparation as compared to a mortality of 4 per cent for end-to-end resection of the left colon.

SUMMARY

A technique of colostomy closure has been presented which in a series of 33 cases has given satisfactory results and has eliminated the objectionable features of the extraperitoneal closure. It is adaptable to both Mikulicz and simple loop colostomies. It has the advantage over resection and end-to-end anastomosis in the left colon in that there is less likelihood of obstruction and no risk of inadequate circulation at the anastomosis. Careful preoperative and postoperative care, including the use of succinylsulfathiazole, is essential, as the procedure is intraperitoneal.

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ABSTRACT OF DISCUSSION

Dr. George W. Waldron, Houston: Dr. Usher has called attention to an important advance in colon surgery. The procedure he describes deserves wider acknowledgment and use. There is no question that a temporary colostomy should be avoided in each case in which the operation can be done as well and the risk kept as low by any other method. But there are many cases in civilian as well as military practice that cannot be submitted to primary resection and closure with any degree of safety because the patient has not or perhaps cannot be adequately prepared. Especially in the hands of the occasional operator a two stage procedure may become a necessity. In such cases, the surgeon seeks the best solution to a difficult problem.

The use of sulfa preparations has been thoroughly discussed by the essayist. Such drugs and the anti-

biotics are so useful that they have altered the course of colon surgery. They, plus the employment of sound principles of physiology and surgery, make this method of colostomy closure possible.

The operation Dr. Usher describes almost eliminates the chance of postoperative peritonitis or fecal fistula. If carried out properly, it lessens the possibility of partial obstruction at the site of closure and it leaves the patient with a strong abdominal wall. When to these advantages is added the knowledge that this procedure, properly done, carries no increase in mortality rate, there can be little argument against it.

LABORATORY AIDS IN THE DIAGNOSIS OF INFECTIOUS DIARRHEA IN CHILDREN

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Outbreaks of diarrheas, especially in children, are serious and vexing problems for the pediatrician and health officer, although this condition does not exist only in children. Health officers are reporting an increasing number of amebic and bacillary dysentery cases each year. Table 1 illustrates the yearly incidence of cases reported to the Texas State Department of Health.

TABLE 1.—*Cases of Amebic and Bacillary Dysentery Reported to Texas State Department of Health.*

Year	No. Cases
1938	937
1939	1,685
1940	3,320
1941	3,539
1942	6,333
1943	14,157
1944	20,908
1945	20,806
1946	15,593

The report from the Bureau of Vital Statistics of the State Department of Health revealed the mortality rates listed in table 2.

TABLE 2.—*Mortality Rates from Amebic and Bacillary Dysentery.* (Deaths per 100,000 population)

Year	All Ages	Under 2 Years	U.S.A.
1936	33.8	26.5	16.4
1937	38	31	14.7
1938	30	24.6	14.3
1939	33.5	27.6	11.6
1940	36.8	30.4	10.3
1941	19.8	16.1	10.5
1942	23.5	17.8	8.8
1943	25.8	20	9.6
1944	28		
1944	27.5	22.2	
1945	21.3	17.6	
1946	(no report)		

Diarrhea and enteritis in a community is an index to the community health and environmental sanitation. There are probably 30 cases of diarrhea and enteritis for every death reported. Little interest is created in a community until an epidemic occurs. An honest effort toward prevention should have greater values for attracting tourists to cities and communities.

Read before the Section on Public Health, State Medical Association of Texas, Annual Session, Dallas, May 6, 1947.

Diarrhea is only a sign of disturbed intestinal activity. It may be caused by overfeeding, food imbalance, irritation of foods, bacteria, viruses, parasites, molds, saphrophytes, allergy, laxatives, and poisons.

Epidemics of diarrhea and enteritis are not limited usually to an age group. When infectious material is disseminated, all age groups may become involved. Approximately 30 per cent of all deaths in the first year of life are attributable to gastro-enteric diseases; therefore diagnostic and preventive measures must be considered seriously.

Laboratories can aid in detection of the etiologic agent, if such exists. At first the physician and pediatrician must report all cases to the health officer and then the health officer must determine the status of the environmental sanitation. Water, milk, and food must be checked for contamination and carriers must be sought. Sporadic cases are usually traced back to a carrier. A careful epidemiologic study must always be made.

Most cases of infectious diarrhea are due to Salmonella and Shigella organism, although Streptococci and Staphylococci sometimes cause considerable diarrheal disturbances in both children and adults. The paracolons and sometimes the colon bacillus appear to take on pathogenic properties. Typhoid and paratyphoid may be found as the causative agent in children.

There are approximately 150 types of Salmonella known. In an outbreak any Salmonella type may be encountered, as well as any type of Shigella. All acute cases should be cultured promptly and carriers checked by cultural surveys. Fecal specimens from children should be obtained by rectal swabs. This will insure representative specimens. We have found that specimens taken with rectal swabs and placed immediately in a preservative media will give a higher percentage of isolations than if stool specimens are submitted.

All specimens received in a six month period at the Laboratory of the Santa Rosa Hospital, San Antonio, were streaked directly on an eosin methylene blue agar and a Salmonella agar plate. One eosin methylene blue agar plate received a heavy inoculum and another received only a light inoculum because the number of organisms in feces cannot be anticipated. Since SS media is more inhibitive to the coli-organisms, only one plate was inoculated. Rectal swabs were put into tetra-thionate broth and placed in the incubator.

The next day colonies were picked and transferred to triple sugar iron agar slants and the tetra-thionate broth culture was

streaked on an SS agar plate. Slants of triple sugar iron agar with suggestive reactions were studied with fermentation reactions and sera. If a large number of suspicious colonies were present, they were immediately studied serologically. We used Lederle's antisera for members of the Shigella genus and a polyvalent antiserum for Salmonella O antigens.

Of 740 specimens received, 110 revealed enteric pathogens which include 27 Flexner dysentery, 29 Sonne dysentery, 40 Salmonella, 2 Rettger's bacilli, and 6 paracolon "Navy." Six of this group were found only on the direct plates, 23 by tetra-thionate broth only, and 82 on both the direct plate and from the tetra-thionate broth. It is evident that about a fifth of the total positives would have been missed had we not supplemented plates with tetra-thionate broth. We would have missed 37 per cent of the Salmonellas if we had not used tetra-thionate enrichment media. Tetra-thionate was only occasionally inhibitive to the Shigellas.

The Rettger organisms are of interest for several reasons. Such an organism was found repeatedly in stool cultures of a fatal case of diarrhea in a 6-months-old child, suggesting that it may at times possess a marked toxicity. The second child from whom a Rettger's bacillus was found suffered a diarrhea, but recovered. The source of this organism is an intriguing question. Did the bacillus reach the children from human contacts, or was the source eggs? In this respect, the occurrence of diarrhea from Salmonella pullorum is pertinent. Salmonella pullorum occurs within the eggs laid by an infected hen. Sporadic cases of diarrhea caused by this organism have been found several times.

The finding of 6 paracolon "Navy" may have some significance since 5 of them were found in infants and 1 in a 9-year-old child with diarrhea. All of these organisms were isolated when tetra-thionate broth was used, and would have been missed if only direct plates had been used.

Occasionally outbreaks of diarrhea are attributable to Endamoeba histolytica, and by cultural studies or complement fixation tests or both, diagnosis can be made when vegetative forms are not demonstrable in stool specimens. Frequently it takes more than a single specimen to demonstrate the active protozoa. Every laboratory should be equipped to do cultural studies and complement fixation tests for checking the sporadic cases that occur in a community. We have obtained approximately a 70 per cent unity of results with the several tests.

Virus studies are difficult and are not feasible in the routine or small laboratory. Stools are seldom applicable because of the lack of a susceptible laboratory animal. Virus seldom appears in stool. If studies are desired, the specimen must be frozen immediately and kept in a frozen state until the virologist can work on it.

CONCLUSIONS

There is a definite increase in the number of dysentery cases reported to the State Health Department.

The mortality rate in Texas is more than twice as high as for the average of the United States and it occurs chiefly in children under 2 years of age.

Tetra-thionate enrichment media allows for a greater percentage of isolation of the enteric pathogens. It allows for the isolation of the unusual microorganism.

Cultural studies and complement fixation tests are now routine laboratory procedures for diagnosis of Endamoeba histolytica infections.

Material for virus studies and identification must be submitted in a frozen state to the virologist.

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ABSTRACT OF DISCUSSION

Dr. F. W. Hoehn, Waco: My concept of most diarrheal disease has materially changed during the past ten years. A mere designation as "diarrhea" or "dysentery" cannot be accepted at the present time when etiologic diagnosis is possible. However, neither the pediatrician nor the general practitioner has made adequate use of the laboratory facilities offered to make an exact diagnosis.

It must first be appreciated that the various types of Shigellas prevalent in this country rarely give rise to the symptoms of bacillary dysentery described in modern textbooks. The symptoms are chiefly those of a simple diarrhea with infrequent bloody evacuations. Diagnosis rests on laboratory methods. Once regarded as a rare tropical disease, Shigellosis is prevalent in the southern United States. Salmonella infections, prevalent in fowls and domestic animals, produce explosive epidemics not amenable to sulfonamide therapy. In Staphylococcic food poisoning all members of the family become sick within from four to twelve hours of each other and recover rapidly in from twenty-four to forty-eight hours. Heavy polluted water produces similar symptoms. Epidemic diarrhea of the newborn, now recognized as a virus infection, and epidemic vomiting with diarrhea may produce difficulty in the differential diagnosis.

Of the primary infectious diarrhea mild cases of Bacillus proteus morgani, Bacillus pyocyaneus (Pseudomonas aeroginosa), and slow lactose fermenting members of the Colon Aerogenes group infections simulate Shigella infections. Likewise parenteral and secondary bowel infections following measles, malaria, and upper respiratory infections may mask subclinical types and can only be differentiated by laboratory findings.

While dysenteries due to Shistosoma, Giardia lemblia, and Balantidium coli are rare in this country, amebiasis is gaining in frequency in some sections

but is seen chiefly in older children and adults. It is characterized by a severe and persistent bloody diarrhea.

Though both morbidity and mortality of the diarrheal diseases have greatly decreased, they still present a severe problem in some parts of the country and all laboratory aids should be welcomed and fully utilized to decrease their incidence.

SERODIAGNOSIS IN SYPHILIS

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It may be said without fear of contradiction, that one of the most difficult problems facing the physician in the field of syphilis is the evaluation or interpretation of serologic tests as relates to diagnosis. Blood tests are of inestimable value in determining the incidence of syphilis in population groups and in the finding of cases of the disease, especially in that great majority of patients who are in the latent stage. Nevertheless, the evaluation of a positive reaction in the individual patient may involve a nicety of judgment which taxes the physician to the utmost.

In these days of blood tests for premarital examinations, food-handlers, and in industry, probably no physician has escaped being faced with the difficult problem of deciding whether a positive reaction justifies a diagnosis of syphilis or whether it is falsely positive. Unquestionably, thousands of persons are placed under antisyphilitic treatment on the basis of one positive or doubtful test, the diagnosis of syphilis often being erroneous. The embarrassment caused by such a diagnosis and the affianced couples who are broken up by the misinterpretation of positive reactions can only be guessed. On the other hand, many a doubtful test for syphilis is probably disregarded when it should offer a clue to possible syphilis of the central nervous or cardiovascular systems.

NATURE OF SEROLOGIC TESTS

There are two general types of tests commonly used in the serodiagnosis of syphilis. The complement fixation tests used most frequently are the Eagle and the Kolmer modifications of the Wassermann reaction. The flocculation reactions, varying essentially only in the preparation of the antigen, in common use are the Kahn, Kline, Hinton, Eagle, and Mazzini. Unlike most biologic reactions the antigen used in the tests is nonspecific, that is, it bears no relationship to the treponema, but is an animal tissue extracted in such a fashion that its sensitivity may be varied. The substance of unknown origin or nature which appears in the blood following infection with the Treponema pallidum and which reacts with the antigen to give a positive result is designated as "reagin."

In the evaluation of any test two aspects must be taken into consideration, its sensitivity and its specificity. Sensitivity is rated as the percentage of true positive reactions in bloods from known syphilitic donors. Specificity is interpreted as the percentage of negative reactions on bloods from presumably nonsyphilitic persons. Laboratories vary greatly in the results they obtain in these two categories even though they use the same type of blood test. The aim of the U. S. Public Health Service in an evaluation study on a nationwide basis was to reduce these discrepancies to a minimum. To each of the investigators who have developed tests or to their representatives were given a series of bloods from known syphilitic and normal persons for examination. Thus it was found that the tests were highly specific.

It might seem that the incidence of falsely positive reactions would be low. However, it cannot be assumed, in the first place, that tests universally will be made under the optimum conditions attained in the laboratories of their designers. Further, in these evaluation studies donors of nonsyphilitic blood were healthy persons not suffering from any infectious processes, some of which might give falsely positive results. Kahn pointed out that in the usual examination of large groups, nonsyphilitic outweigh syphilitic persons and thus high specificity may appear reassuring.

With increased sensitivity there is a loss of specificity.

Kahn,[2] in emphasizing that high specificity rather than sensitivity should be the major consideration of a serologic test, gave the following hypothetical example. If 40,000 hospital admissions had 1,200 cases of treated or untreated syphilis among them, an increase of 1 per cent in sensitivity would pick up 12 additional cases of treated or untreated syphilis, whereas 1 per cent increase in nonspecificity would result in 400 nonsyphilitic patients being reported positive.

The remarks with reference to sensitivity and specificity will underline the shortcomings of the sensitive Kline "exclusion" and Kahn "presumptive" tests which the originators have emphasized—they are "screen" and not diagnostic tests.

In general it may be said that the flocculation reactions are the more sensitive but that the complement fixation is the more

From the Department of Medicine, Vanderbilt University School of Medicine.

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specific test. Thus with a small amount of reacting substance in the blood, as in early primary syphilis or in late or treated syphilis, the flocculation reactions are more likely to be positive, the complement fixation possibly being negative. However, there is a small group of patients having the inexplicable finding of a positive complement fixation reaction and a negative precipitation test. This situation is most likely to be encountered in late or treated syphilis.

When a "battery" of tests is used, that is, three or more reactions, there may be wide discrepancies in the results. The lack of uniformity in results may seem to indicate a falsely positive test and is often accepted by the physician as ruling out syphilis. This is not necessarily true. Though strongly positive blood will react to all procedures, irregular results may occur in some syphilitic as well as in falsely positive sera. Some weakly positive syphilitic sera may react consistently with one or more of a battery of tests whereas other sera react with others of such a series. The reason for this discrepancy is not well understood.

The results of both the complement fixation and flocculation reactions can be determined in a quantitative fashion by the use of serial dilutions. The quantitative test may be important diagnostically both in false positive tests and in syphilis. Furthermore, the quantitative tests are essential to the physician using any intensive method of antisyphilitic treatment. The patient treated for secondary syphilis with penicillin is still seropositive at the end of treatment and may remain so for weeks, months, and even years. Success of treatment can be recognized only by a dropping titer. Failure or sero-relapse, warning of serious complications, is made apparent by continuing high titer or a rise of titer following a fall. Intensive treatment has as its corollary quantitative tests only in follow-up.

SEROLOGIC TESTS IN SYPHILIS

1. In primary syphilis there is a seronegative stage in which reagin content is at a subthreshold level, and diagnosis is possible only by darkfield examination. By the time the chancre has been present for two weeks, positive blood tests will be present in well over half the patients. In rare instances the blood may remain seronegative as long as a month after the appearance of the lesion.

2. Secondary syphilis is accompanied by positive complement fixation and flocculation reactions in 100 per cent of cases. No matter how certainly the rash may suggest secondary syphilis, a negative blood test should interdict antisyphilitic treatment.

3. Late syphilis is not associated consistently with either negative or positive reactions, the result depending upon the reagin content of the blood. This drops with the passage of years. Though late benign lesions—gumma of bone, skin, and so forth—show positive tests in probably 95 per cent or more of cases, the reactions may be negative for both complement fixation and flocculation tests or may be doubtful in either or both. Negative blood tests are encountered in cardiovascular syphilis in as many as 15 per cent of cases. Though most forms of neurosyphilis have attendant positive blood reactions, both the complement fixation and flocculation type of test may be negative or doubtful. Tabes dorsalis notably is accompanied by negative serologic reactions in the blood in 33 per cent of cases at the time the physician is consulted because of symptoms. The importance of spinal fluid examination if this type of neurosyphilis is suspected is obvious, even though the blood is negative. On the other hand in untreated general paresis the blood gives almost universally a positive reaction for syphilis.

4. In untreated latent syphilis blood tests give variable results. During the early years of symptomless infection the reacting substance is of such titer that all tests are positive. With the passage of many years either the complement fixation or flocculation reactions, or both, may become doubtful or negative. Even in late asymptomatic neurosyphilis (positive spinal fluid) the blood may become spontaneously negative.

Treatment, if adequate, will modify the reactions, causing their complete or incomplete reversal. In some cases treatment, though successful from a clinical viewpoint, fails to reverse the blood tests, such a patient thus presenting "serofastness."

A word about apparently fluctuating blood tests is in order. If frequent examinations are made in a given case, it is not uncommon to find a fluctuation in the serologic reactions. Thus in a patient under treatment for syphilis, or in one whose disease is of many years duration, the results at intervals may be negative, doubtful, or positive. For a long time these findings were thought to indicate varying amounts of reagin in the blood stream, dependent possibly on the degree of tissue reaction to syphilitic foci. This may be true at times, but Mohr and Smith[6] showed that such variations are not due to a fluctuation of reagin content of the serum but that they reflect daily variations in sensitivity of the tests employed in the laboratory.

FALSE POSITIVE REACTIONS

A doubtful or positive reaction in the person with no history or clinical evidence of syphilis poses a serious problem to his physician. This may be obtained at times with either the flocculation or the complement fixation reaction, much less frequently with the latter. The magnitude of this problem is shown by Zellermayer[11]. In a study of 5,000 Army inductees suspected of having syphilis he classified 570 (or 11.4 per cent) as nonsyphilitic. These had been labelled as "suspects" in 80 per cent of instances because of one positive blood test. Subsequent serologic study indicated seronegativity.

The reasons for falsely positive results are as follow:

1. *Technical Errors.*—There may be errors in identifying the specimen and the report slip, as well as errors in reporting results. Dirty laboratory glassware may cause false positive tests. False positive reactions may be a reflection of technician's errors in reading the results. Beginners, especially, tend to report more doubtful tests because of a fear of failing to recognize frank positive reactions. One important source of error is to be found in the antigens themselves, the result of adventitious materials and other factors.

2. *False Positive Tests in Normal Persons.*—Many of the warm-blooded animals give positive reactions for syphilis, indicating the presence of some substance in the blood which reacts with the antigen. Certain studies indicate that many, if not all, human subjects have at least some of this reacting substance in the blood. Fortunately, for the value of the serologic examination for syphilis, the number of persons having a sufficient amount of this substance to give a positive result with diagnostic tests makes up only about 1 per cent of the population. To be sure, this constitutes but a small number of persons in the testing of population groups. Yet the knowledge that biologic false positive reactions do occur must come to the physician's mind when he is faced by an apparently healthy person with only a positive flocculation test, a history negative for syphilis, and no history of sexual exposure. (At the conclusion of the war it was divulged that according to the experience of some clinics blood donors of repeated donations might develop temporary seropositivity. This possibility has been refuted by others.)

3. *False Positive Tests in Nonsyphilitic Diseases.*—In addition to the normal persons giving false positive reactions for syphilis is an important group of patients suffering from one of several diseases now known to produce positive reactions in some instances. In general these diseases are due to either protozoan or virus infectious agents. Rickettsial infection may lead to seropositivity for syphilis. Bacterial infections rarely give positive tests. A number of miscellaneous conditions can also provoke falsely positive results.

Diseases Due to Protozoa.—Yaws, bejel, and pinta are three diseases of the tropics, each due to a spirochaeta indistinguishable from the Treponema pallidum and all associated with positive serologic reactions for syphilis. Kala-azar and trypanosomiasis may at times have associated positive reactions.

Several protozoan diseases occurring in the United States must be kept in mind. Relapsing fever, a spirochetal disease encountered occasionally in this country, may show positive reactions. Weil's disease (spirochetal jaundice) is another showing a high incidence of falsely positive tests. The same has been reported for rat-bite fever whether due to Spirillum muris or to the Streptothrix.

Malaria also may cause false positive reactions for syphilis. Though there has been much discussion in the past relative to this matter, observations in recent years in the Army definitely have settled the controversy. Rosenberg[10], for example, found that mixed infections (Plasmodium falciparum and Plasmodium vivax) give the highest incidence of positive tests. The most clear-cut reactions occurred from seven to ten days after the first paroxysm. Rosenberg found positive tests to persist for from four to six weeks. Positive reactions have been reported in various series in from 20 to 80 per cent of active cases. It must be emphasized that a positive blood test must not be disregarded because of malaria in the past history, for this disease is not associated with permanent seropositivity.

Diseases Due to Viruses—Of this group infectious mononucleosis was the first to attract attention in the field of false positive tests for syphilis. How readily an erroneous diagnosis of secondary syphilis could be made in the patient with this disease—a young adult with the clinical picture of fever, sore throat, generalized lymphadenitis, occasionally a rash, and a positive blood test for syphilis! The incidence of false positive reactions has been reported as from 8 to 60 per cent.

Vaccinia as a cause of false positive tests for syphilis has been of increasing interest since first described in 1940.[1] A number of studies on the subject indicate that from 10 to 15 per cent of persons having "takes"

with smallpox vaccination will develop doubtful or positive blood reactions. A lesser number of those having vaccinoid reactions will react similarly. Occasionally false reactions occur because of closely related viruses as in herpetic diseases.

Lymphopathia venereum may be accompanied by positive precipitation tests, an especially confusing reaction since the disease is venereal. Recently atypical pneumonia, a virus infection, has been shown to have associated false positive reactions for syphilis in about one-fifth of the cases.[9] Several papers have mentioned false positive reactions for syphilis in measles and in mumps, appearing in a small percentage of cases.

Diseases Due to Bacteria.—Leprosy is the bacterial disease most often attended by false positive tests for syphilis, an incidence varying from 30 to 60 per cent of cases. Fortunately, this offers a negligible problem to the average practitioner because of the rarity of the disease.

Miscellaneous Conditions.—Recently it has been shown that stimulating or "booster" doses of tetanus toxoid may be accompanied by positive Kahn tests.[4] The original immunization has not as yet been demonstrated to cause this reaction. False positive results may be encountered occasionally in patients who recently have been treated with horse serum antitoxins. In the presence of hyperglobulinemia positive precipitation tests have been known to occur.[3] Thus Boeck's sarcoid, multiple myeloma, and disseminated lupus have been known to be the cause of false seropositivity.

Several generalizations may be made relative to the development of false positive reactions for syphilis in nonsyphilitic diseases. (1) A period of from seven to twenty-one days must elapse after the onset of the disease before the positive reactions develop. (2) There is a tendency toward fluctuation of the degree of positivity even from day to day. Thus a day or two or more after a positive is obtained, a negative or doubtful reaction may be recorded. This fact probably accounts for the great differences reported in the incidence of positive results in the diseases listed above. Some authors have taken blood samples at more frequent intervals during the course of an illness than have others and thus have found a greater number of positive reactions. Furthermore, it is customary to do one test for syphilis at the beginning of a period of clinical observation and thus miss the development of a positive test later. (3) Most of the false positive reactions are lost in from three to four months. (4) In general, false positive tests tend to be of a lower titer than those of syphilitic blood, but there are exceptions. (5) False positive tests are most commonly seen in the flocculation type and less commonly with the complement fixation. The latter, however, may give an anticomplementary reaction. Increasing experience in false positivity is showing that there may be a definite pattern related to the type of test. Some nonsyphilitic conditions give more false positives with one flocculation test than with another. The incidence of false positive results in malaria and leprosy may be greater in the Kolmer complement fixation than in the flocculation type of reaction.

To date attempts to provide aids in the differentiation of false positive reactions from the true positive results due to syphilis have been unsuccessful. Several years ago Kahn developed the so-called "verification" test, to separate nonsyphilitic positive bloods from syphilitic positive bloods. This test does not satisfy the criteria which a verification test should have and thus will not always settle the problems it is called upon to solve. Nor has the use of spirochetal antigens proved much more specific than beef heart antigens. Neurath[8] has been directing his efforts toward the use of serum fractionation as a possible method of separating syphilitic from the falsely positive sera.

DIAGNOSIS OF SYPHILIS BASED ON SEROLOGIC TESTS

The interpretation of doubtful or positive tests for syphilis in the person without a history or clinical evidence of syphilis presents the physician with a troublesome problem.

Moore[7] pointed out that on clinical grounds a physician is justified in suspecting a false positive result in at least two groups of patients, as follows: (1) Young girls or women who give no history of syphilitic infection, who show no physical evidence of the acquired or congenital disease, and who have not been demonstrably sexually exposed (for example, virgins); (2) persons of either sex of any age who, lacking historical or physical evidence of syphilis, are found to have positive tests at an interval after one or more previously negative tests and who deny exposure in the interim.

On serologic grounds a physician is justified in suspecting a false positive result in a patient who, lacking historical or clinical evidence of infection, gives a series of doubtful or weakly positive tests with conflicting results from different techniques or different laboratories.

Moore suggested that approach to a study of the problem of the individual patient be somewhat as follows:

1. Take a careful history as to the symptoms of some intercurrent infection, serum treatment, or vaccination.
2. Make a careful physical examination for evidences of acute infection, with special reference to lymph nodes, spleen, and lungs.
3. Make a thorough search of blood smears for malarial parasites.
4. Examine blood smears for infectious mononucleosis, as this is a much more common infection than it is usually thought to be, and make a blood test for heterophil antibodies.
5. Repeat serologic tests for syphilis by several different techniques, including both complement fixation and flocculation, at least one of which is quantitatively titered.
6. Repeat serologic tests for syphilis in several different laboratories of known excellence in order to rule out all possibility of technical error.
7. Examine members of the family and sexual contacts. Congenital syphilis may thus be ruled out.
8. Examine the cerebrospinal fluid if a decision cannot be reached otherwise.
9. Withhold antisyphilitic treatment unless and until the diagnosis of syphilis is proved.

Moore's suggestions as outlined present the approach to the problem of possible false positivity. I have outlined from a slightly different viewpoint an approach in using the positive blood test as the sole factor in the diagnosis of syphilis. This represents experience in our practice at the Vanderbilt University Hospital Syphilis Clinic.[5]

Broadly our cases are interpreted with necessary variations, somewhat as follows: (These interpretations presuppose a negative history of syphilis or previous antisyphilitic treatment, a negative physical examination for syphilis, and a negative spinal fluid. They also imply either negative results in the examination of family or sex contacts or the unavailability of such for examination. Furthermore, there must be no evidence of disease capable of giving false positive results.)

1. Persistently and repeatedly positive reactions with both complement fixation and flocculation tests are accepted as establishing the diagnosis of syphilis. ("Persistently and repeatedly" means the taking of frequent tests for weeks or months, as may be indicated in a given case.)
2. Persistently and repeatedly positive flocculation tests with doubtful complement fixation tests are considered to mean syphilis in the presence of admitted and repeated sexual exposures.
3. Persistently and repeatedly positive flocculation tests with negative complement fixation tests are accepted as indicating syphilis in persons who have been sexually promiscuous for years.
4. Fluctuating flocculation tests with possibly an occasional doubtful complement fixation test cannot be accepted to mean syphillis.

Every contingency cannot be covered by any set of rules or suggestions. As in every field of medicine, the practitioner in the end must rely upon his clinical judgment in making his decision. A thorough knowledge of the biology of the syphilitic infection must be the foundation upon which he will make his decisions.

SUMMARY

Brief consideration has been given to the significance of negative, doubtful, and positive blood tests for syphilis. The problem of false positive tests has been discussed as well as the true positive tests. Finally, the application of serodiagnosis to the individual patient has been outlined.

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MARKLE FOUNDATION TO AID SCHOLARS

The John and Mary R. Markle Foundation has announced plans for a new program of aid to young scientists interested in research and teaching. Grants of $25,000, payable at the rate of $5,000 annually, will be made to medical schools to help support research and teaching in any of the clinical or preclinical sciences or the sciences basic to medicine. Each grant will be for a specific "Scholar in Medical Science" who will be nominated by the school and chosen by the foundation and who will be given regular faculty appointment by the school. Persons interested in being considered as candidates are referred to the deans of accredited medical schools for additional information.

THE PERSISTENT POSITIVE FRIEDMAN TEST IN HYDATID MOLES

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Few diagnostic problems have been more urgent and yet more difficult to solve than those encountered in hydatid moles. Hydatid moles are not common, and persistently positive Friedman tests following the removal of hydatid moles are known to have occurred in 4 of 21 patients from whom I have studied moles during the past two years. Nevertheless, there have been several reports in literature, and there have undoubtedly been unrecognized or unreported cases.

In spite of the rarity of hydatid moles and chorionepitheliomas, these conditions have always excited much interest because of certain peculiarities of clinical and pathologic behavior which they present. This interest has been increased in recent years because of biologic properties which these tumors have been shown to possess. A valuable application of endocrinology has been in the use of the Friedman test in prognosis and management of these conditions.

The Friedman test is based upon the fact that normal living trophoblasts produce a gonadotrophic principle which finds its way during pregnancy or the presence of hydatid moles and chorionepitheliomas into the blood and urine, so that when injected into suitable animals, it produces certain characteristic changes.

As early as 1928 Aschheim called attention to the presence of large amounts of gonadotrophic hormones in the urine and blood of women with hydatid moles. Rossler, in 1929, applied this method in a quantitative way in an effort to differentiate the mole from normal pregnancy. He was of the opinion that the quantitative determination was diagnostic and there have been similar reports, but for the past few years there has been growing recognition that the quantitative test has certain limitations, for instance in multiple pregnancies and hyperemesis gravidarum. Evans, Kohls, and Wander[2] have shown that in normal pregnancy there is a period, four to six weeks after the first missed menstruation, when there is a sudden high peak of hormone excretion. The quantitative hormonal test is valid for diagnosis only when it is considered in relation to the length of time elapsing from a missed menstrual period, because at certain intervals blood and urine may give as high titer from a normal pregnancy as from a hydatid mole.

Many reports have appeared calling attention to the pitfalls involved in the application of this hormonal test for diagnosis and prognosis, as well as for the detection of metastasis. It may lead to error unless combined with thorough clinical and pathologic study of the individual case. It has been found that after evacuation of a mole there is a prompt drop in titer of the hormone. But if some of the tissue remains and there is renewed proliferation of the trophoblasts, there is a secondary rise in from thirty to fifty days. Following the evacuation of a mole, routine hormonal determination should be made once a month for the first year and at least once every two months for a second year.

FIG. 1. Trophoblastic overgrowth. X 100.

Care must be taken not to interpret a positive test as a recurrence of the mole or chorionepithelioma when actually a normal pregnancy has intervened. Schulze[4] reported twin pregnancies and one triplet pregnancy being interrupted where abnormally rapid enlargement of the uterus was observed and the biologic test was not correctly interpreted.

Zondek laid much stress on the value of positive Friedman tests obtained from cerebrospinal fluid as compared with negative results in normal pregnancy. Vesell and Goldman,[6] investigating the claims of the

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value of spinal fluid as a differential aid, observed positive Friedman tests only in the presence of moles. The test was negative in normal pregnancy, both early and late; also in myomas and salpingitis. Our laboratory tests on spinal fluid obtained within three weeks after the removal of moles from 5 patients were negative with 1 negative ten days after the removal of a mole and 1 positive on spinal fluid obtained six weeks after the removal of a mole.

In the presence of persistent positive Friedman tests hysterectomy is not recommended in less than from three to four months because Armstrong,[1] analyzing 24 cases of hydatid mole, reported that 53 per cent of the patients subsequently became

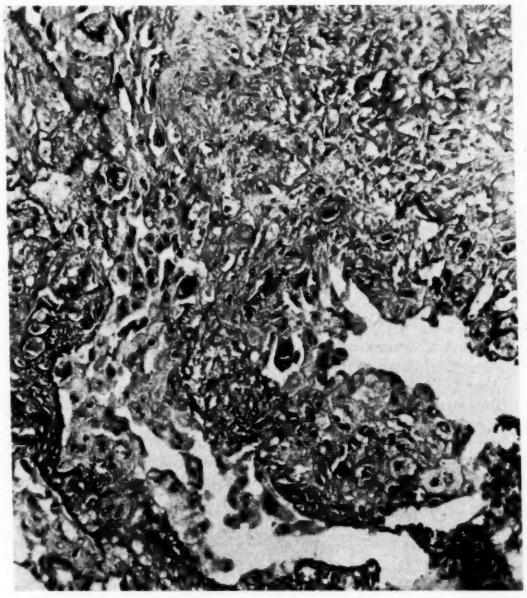

FIG. 2. Trophoblastic overgrowth showing vacuolization of syncytial cells. X 100.

pregnant and were delivered of full term infants. He observed no mortality, and no chorionepitheliomas developed. Toland[5] warned against being too hasty to remove the uterus in the presence of persistent positive Friedman tests and reported a case that cleared after six months. Various writers reporting similar outcomes have stressed the importance of conservative treatment of hydatid moles. In the event hysterectomy is indicated, Mathieu[3] advocated saving the ovaries.

Very good authorities contend that if the diagnosis of the chorionepithelioma is made before clinical signs develop, complete eradication of the tumor can be carried out before metastasis occurs. A biologic test such as the Friedman is at present a most valuable aid because it has been found that approximately 50 per cent of chorionepitheliomas have been preceded by hydatid moles.

During the past two years I have studied tissues from 21 patients with hydatid moles,

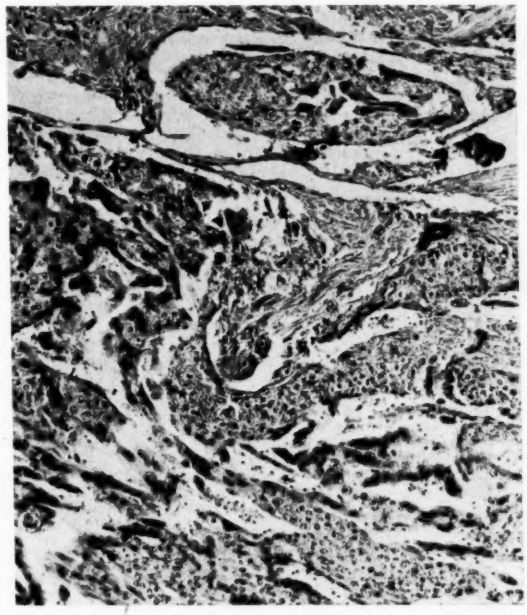

FIG. 3. Chorionepithelioma showing large masses of trophoblasts of both syncytial and Langhans' types. Note the blood vessel filled with tumor cells. X 100.

4 of whom had persistently positive tests. Through the courtesy of the attending physicians, Dr. C. F. Adams (case 1), Dr. E. E. Anthony (case 2), Dr. C. S. Mast (case 3), and Dr. W. A. V. Cash (case 4), the laboratory findings and brief histories with comments will be outlined.

CASE REPORTS

CASE 1.—Mrs. L. J. W., age 25, passed a hydatid mole in March, 1946. Six weeks later the Friedman test was positive. The uterus was carefully curetted and the tissue obtained consisted of degenerated decidua with a number of syncytial cells. No chorionic villi were observed. Four months after the mole was removed the Friedman test was positive and at that time the opinion of the attending physician and consultants was that the uterus should be removed.

The uterus, which was not enlarged but slightly irregular, measured 8 cm. in its longitudinal axis, 6 cm. transversely, and 3.5 cm. anterior-posteriorly. The endometrial surfaces were smooth and pink and there were no areas of thickening. In the wall of the uterus, just below the left cornu and beneath the serosa, extending to the cervix, there was a friable hemorrhagic tumor approximately 4 by 2 by 1 cm. This tumor did not grossly communicate with the uterine cavity. Histologic sections consisted of necrotic tissue in which there were

scattered trophoblasts occurring in narrow columns around large blood spaces. There were old and recent hemorrhages. No villus patterns were observed. The Friedman test remained negative through March, 1947, or for one year.

CASE 2.—Mrs. B. R., age 21, para 1, was admitted to the hospital February 22, 1946, complaining of a mass in the pelvis. Roentgen examination showed the outlines of a large, uniformly round mass which practically filled the pelvis. No evidence of a fetus was found. There was enlargment of the uterus to the size of a four months pregnancy. The Friedman test was positive. February 26 the uterus was emptied of a large hydatid mole. In April, eight weeks later, when the Friedman test was positive, the uterus was curetted and degenerating decidua were obtained. April 30 and May 4, the Friedman tests were positive. May 6 the uterus was again curetted and only fragments of endometrium were obtained. May 13 the uterus was removed. The organ was not enlarged; it was spongy, pink, and weighed 52 Gm. The endometrium was smooth, thin, and had a polished appearance. There was slight thickening of the wall of the right cornu. On sectioning of the wall at this point there was revealed a circumscribed, slightly mucoid, dark pinkish-gray tumor 2 cm. in its greatest diameter.

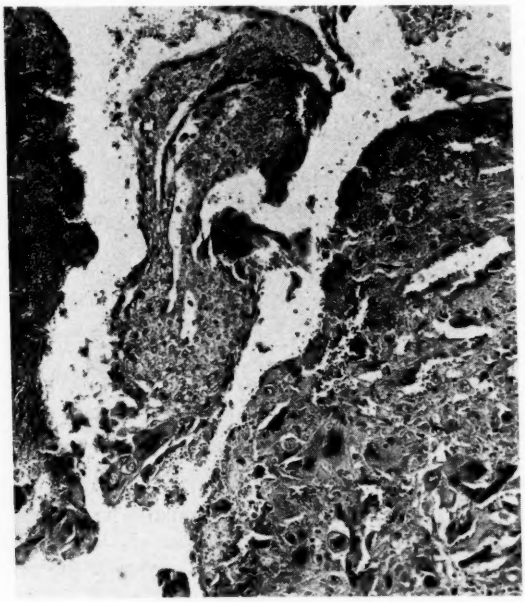

FIG. 4. Chorionepithelioma showing trophoblasts of both syncytial and Langhans' types invading uterine muscle. X 100.

Histologic sections from the endometrial surface of the uterus were covered by a very thin layer of fibrous endometrium in which there were a large number of inflammatory cells and scattered acini lined with nonsecreting epithelial cells. In sections from the tumor there were coagulation necrosis, hemorrhage, and trophoblasts occurring in columns and masses. There was no evidence of the original villous pattern. This tumor was interpreted as atypical invasion of the uterine wall by a hydatid mole. The Friedman test remained negative through March, 1947, or for ten months.

CASE 3.—Mrs. G. B. Jr., age 26, about three and one-half months pregnant, was first examined July 14, 1946, because of cramping and bleeding which ceased forty-eight hours after hospitalization and treatment. She was again seen September 11 because of bleeding which came on suddenly. The uterus was larger than would be expected for a five months pregnancy. September 20 the patient was admitted to the hospital and a large quantity of placenta-like tissue was removed from the uterus in which a few cyst-like pieces of tissue were observed. The menstrual flow increased each succeeding month until January 1, 1947; the patient bled freely and secondary anemia was obvious. January 5 the uterus was again curetted and sections of inflammatory endometrium and masses of trophoblasts in hemorrhagic necrotic tissue were obtained. The uterus was removed February 15. In the fundus and not involving the endometrium there was a circumscribed tumor approximately 2 cm. in diameter, the cut surfaces of which were irregular and contained small hemorrhages.

Histologic sections from the tumor were of chorionepitheliomas, showing large masses of trophoblasts of both syncytial and Langerhans type invading the uterine muscles. There was no trace of villi to be found. The Friedman test was positive through March, 1947, and negative on urine with low specific gravity on April 25, ten weeks after hysterectomy.

CASE 4.—Mrs. G. C. O., age 27, had had one living child and two abortions. The last abortion was followed by dilatation and curettement in March, 1942. When seen in October, 1944, she was thought to be pregnant at about two months. In November she was admitted to the hospital bleeding profusely, and emergency dilatation and curettage was done. Instead of pregnancy there was a large hydatid mole. In December, 1944, and January, 1945, there was uterine hemorrhage and the uterus was removed in February, 1945. In the wall and not grossly involving the endometrium there was a circumscribed tumor which histologically was atypical chorionepithelioma. Positive Friedman tests in March and April were followed with 3,424 r of roentgen rays. A Friedman test on July 28, 1945, was negative, but another test in October, 1946, was positive. Roentgen therapy was instituted again (3,440 r.) but the Friedman tests in January, February, and March, 1947, remained positive. Clinically, the patient now appears normal, despite the positive Friedman test.

SUMMARY AND CONCLUSIONS

Four women, ages 21, 25, 26, and 27 years, each with hydatid moles and with persistent positive Friedman tests over a period of more than three months following removal of the hydatid moles, were subjected to hysterectomy, and tumors involving the wall of the uterus but not communicating with the uterine cavity were removed.

In all patients exploratory curetting at the time of hysterectomy would have failed to remove the tumors. Failure to recognize the significance of the hormonal test might have deprived 2 of these women of early and probably curative treatment. The Friedman test was negative for 2 of the patients one year after hysterectomy, negative for 1 ten weeks after removal of the uterus, and positive for 1 two years after removal of the uterus.

A careful review of the material leads to the conclusion that although histologic examination of the mole for criteria of potential malignancy is sometimes suggestive, it

cannot at present be depended upon entirely. No matter how benign the microscopic picture, every mole should be carefully followed. The proper interpretation of the biologic test is necessary because there have been interruptions of normal pregnancies.

The Friedman test may then be used (1) as a criterion of the complete removal of a hydatid mole, (2) as indication of the presence of subsequent chorionepithelioma, and (3) as evidence of the absence of secondary deposits after hysterectomy.

It is well known that laboratory findings must not be regarded as wholly determinate in these cases. If biologic tests are positive, they may confirm the clinical behavior. On the other hand, negative findings cannot be implicitly relied upon in such cases any more than in other fields of medicine. The principal basis of diagnosis and treatment must continue to depend upon history, course, clinical findings, surgical training, and common sense.

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Medical Arts Building.

ABSTRACT OF DISCUSSION

Dr. Clinton E. Adams, Abilene: Hydatid moles are not commonly recognized; more doctors indicate that they have seen moles than hospital records reflect. At least moles are not considered serious. In the last fifteen months I have had 2 patients with moles; 1 ended without special treatment and the other was mentioned in Dr. Owen's first case. I was glad to learn that spinal fluid may be examined and is more diagnostic, perhaps, than an Ascheim-Zondek test on urine.

From literature it appears that about 1 in 1,333 supposed pregnancies is a mole. Approximately 33 per cent of moles progress to chorionepitheliomas. Moles are twice as common in multiparas. Moles may follow abortion or labor at term. Subsequent moles are rare.

Treatment consists of evacuation of the uterus from below. If the Friedman test is persistently positive, total or subtotal hysterectomy, with preservation of the ovaries if possible, seems to be the procedure of choice. If the Friedman test is persistently positive after hysterectomy, it is likely that metastasis has already developed.

Dr. Owen, closing: I should like to emphasize the importance of frequent Friedman tests for a period of from one to two years for patients who have had a hydatid mole. Dr. Mast's patient illustrates very forcefully the necessity of this examination since the third Friedman test following hysterectomy is positive.

HOSPITAL CONSULTATIONS IN OTOLARYNGOLOGY

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"A good consultation may be only a sincere solace" was the personal advice of Sir St. Clair Thompson, one of the greatest otolaryngologists of our time. When a consultation is to be had, the physician desiring the consultation should review his case and critically analyze every question that he would ask if he were to be the consultant. Every laboratory test should be brought up to date, a complete history written, and a thorough physical examination made. There should be nothing that the consultant can ask for within reason that has not already been prepared and scrutinized. This will save embarrassment and insure the most favorable opinion from the consultant to the family, "everything has been done for the patient that modern medicine can offer and I feel that you are in safe hands and hope that the outcome will be favorable."

In order that such a procedure be possible, the physician should keep abreast with what the specialist he is calling in for consultation does for his own patient. For that reason I shall review a few interesting consultations.

CASE REPORTS

CASE 1.—Mrs. P. was admitted to the hospital with the chief complaints of headache and fever. The past history was irrelevant except that the family history contained sufficient allergic manifestation to justify a conclusion that the patient might be allergic.

As a child she had frequent colds and a discharging nose. As she reached puberty the nasal blockage became more apparent, and after trying the usual nasal drops she consulted an otolaryngologist, who advised the removal of her tonsils and adenoid. Her convalescence was uneventful, but she continued to have nasal blockage and a second otolaryngologist was consulted. His examination revealed that the tonsils had been well removed, but if the adenoid tissue had been removed it had redeveloped. The second otolaryngologist discovered the presence of nasal polyps, and a roentgenogram of the sinuses showed a blockage of the antra. The polyps were removed and the adenoid tissue reduced surgically for the second time. No attention was given to the allergic phase of her condition, and within three months this girl of 15 was again a sufferer of nasal blockage and postnasal discharge, and also complained of headache.

The polyps were once more removed, and with their reformation the girl and her family became disgusted. She tolerated the presence of the polyps for four years, during which time she married.

With her first pregnancy, the polyps increased in size until they were apparent, anteriorly filling the vestibules of the nose. The young mother contracted an acute infection of the upper respiratory tract and was admitted to the hospital with fever, headache, and drowsiness.

Read before a general meeting of the State Medical Association of Texas, Annual Session, Dallas, May 6, 1947.

Consultation was requested with the question, "What can be done for this unfortunate mother?" A roentgenogram of the sinuses revealed a uniform cloudiness of the antra. The sedimentation rate was elevated. The white blood count was 15,000, with a differential of 86 per cent polymorphonuclear leukocytes. Physical examination of her head revealed that the nares bulged from the pressure of a polyp. The orbits presented an exaggeration of the edema found in nasal obstructions. There was a postnasal discharge, purulent in character, and the lateral pharyngeal lymphoid tissue was hypertrophied.

Experience has taught me never to remove nasal polyps in the presence of fever, purulent discnarge, and an elevated sedimentation rate. Fortunately nothing was done surgically and in twenty-four hours sepsis had claimed this woman in spite of sulfa therapy. As this was before the days of penicillin, no opinion can be given as to what would have been the outcome if she had had the benefits of the antibiotics.

CASE 2.—W. R. B., aged 21, a student at the University of Mississippi, was admitted to the hospital unconscious, with the history of having fallen down the stairs of a dormitory.

When admitted to the hospital the patient was unconscious, and it was thought that he had received a fracture of the skull. The boy was studied by a member of the neurosurgical department, who could find no evidence of a fractured skull, but he did discover that the boy had a cerebrospinal rhinorrhea. A rhinological consultation was requested. The upper part of the nose was filled bilaterally with polyps. The roentgenogram of the sinuses was of little help as the only pathologic condition recorded was a cloudiness of the ethmoid region.

A spinal tapping was productive of a cloudy fluid with a count in excess of 6,000 cells to the cubic centimeter and a differential count of 90 per cent polymorphonuclears. Fever recording was septic, and the boy never regained consciousness, dying within the first twenty-four hours after admission. An autopsy of the head showed a large mass of polyps in the upper nasal meatus and a bilateral erosion into the anterior fossa of the skull.

History regarding this patient obtained subsequently was to the effect that he had had a severe headache sufficient to require him to remain in his room three days previous to his fall. The night of the accident his roommate had noticed that his conversation was irrational.

Evidently this boy, while attempting to go to the bathroom unassisted, had fallen down the stairs, and the accident was sufficient to rupture the ethmoidal capsule into the cranial cavity and make apparent his cerebrospinal rhinorrhea.

CASE 3.—J. B., aged 26, was admitted to the hospital with a compound facial injury. When first seen he presented the usual appearance of a man injured in an automobile accident. He had many facial contusions and was bleeding from the nose and mouth. A roentgenogram of his face and skull presented multiple fractures, the most serious being one through the upper nasal bones at their articulation with the frontal bones. When he was placed upon the x-ray table, the casette was soiled by a profuse cerosanguinous discharge, signifying a leak of the cerebrospinal fluid. No attempt was made to manipulate any of the facial bones involved in the fractures. The skin wounds were given the usual attention and the patient was given the advantage of antibiotic and sulfa therapy. Fortunately the leakage ceased after ten days.

I have had no success in trying to patch tears that involve the cribiform plates. Such patients have a constant menace, as a slight nasal infection may for a long time be the avenue for the entrance of intracranial infections.

CASE 4.—Mrs. J. H., aged 22, was admitted to the hospital as an obstetrical patient of six months' gestation. A consultation was requested for the study of an antral tumor. Examination of her mouth showed a bulging above the upper teeth with a complete blockage of the right naris. A roentgenologic study revealed a solid tumor filling the right antrum. A biopsy was made and the tissue was typical of an adamantinoma. As these tumors are slow growing and only destroy by pressure and operations upon the nose and paranasal sinuses may bring on abortion, no attempt was made to remove the tumor. The patient was requested to return after her delivery, but unfortunately she was not seen again until two years later when she returned as an obstetrical patient. A roentgenogram at this time demonstrated that the tumor had increased in density, but was confined to the cavity of the antrum. The same advice was given the patient and she delivered a healthy child.

Nonmalignant tumors of the sinuses do not interfere with the progress of gestation, but the surgical intervention will interrupt its progress.

CASE 5.—W. A. S., aged 49, was admitted to the hospital with the chief complaint of sore throat, dysphagia, and a moderate dyspnea of one week's duration.

Examination revealed a well nourished white man with a brawny induration on the left side of the neck. Examination of his throat was difficult, as any attempt to press upon the tongue resulted in strangulation. A roentgenogram of the neck revealed an increase of the prevertebral tissues more than the size of the body of the vertebra. (The normal shadow cast by the soft tissue of the pharynx is considered to be one-third the size of the body of the vertebra.)

Such patients cannot be given a general anesthetic and preparations should be made for a tracheotomy before any attempt is made to evacuate an abscess. Sedation is dangerous and the approach to an abscess should be external by skeletonizing the vertebra. Any approach through the pharynx invites extension into the spinal column. In spite of attention to these precautions, such patients are a risk, and the patient in this case died a few hours following the drainage.

CASE 6.—Mrs. H. W. was admitted with a trismus dyspnea and dysphagia on the fifth day following a local tonsillectomy. She presented the same type of brawny induration of the neck as was noted in Case 5, and visibility of the pharynx was negative.

The most common cause of postoperative tonsil trismus is the result of a Vincent's infection increased following the infiltration of the local anesthesia. No attempt was made to drain, but the patient was given sodium cacodylate, grains 5 intravenously; nicotinamide, 50 mg. subcutaneously, each day; and sufficient fluids intravenously to prevent dehydration. Fortunately, the patient made an uneventful recovery. As is true in the majority of Vincent infections, there was no suppuration.

CASE 7.—R. K., a boy, aged 5, was referred for treatment of a sinusitis. He had an unusual blood count of 5,500 white blood cells with a differential count of polymorphonuclears 6 per cent and lymphocytes 94 per cent. Pentnucleotide therapy was instituted and the white blood count increased to 7,600 with a differential of polymorphonuclears 62 per cent and lymphocytes 38 per cent. Three months later the boy was back in the hospital with what appeared to be an acute mastoiditis. There was a blood count of red blood cells 2,980,000, hemoglobin 50 per cent, white blood cells 33,850, polymorphonuclears 1 per cent, and lymphocytes 99 per cent.

A mastoid operation revealed an unusual condition. The mastoid process had coalesced and the tissue had more the appearance of glandular than osseous tissue. The hemogram continued to show an increase. The leukocytes and other manifestations of an acute leukemia were evident, that is, bleeding gums and ecchymosis of a conjunctiva. The boy grew progressively weak and died.

Acute lymphatic leukemia in a child may be manifested under the guise of an acute suppuration, and in this case it was first a sinusitis and next a mastoiditis.

1018 Madison Avenue.

PROPOSED REVISION*
OF
CONSTITUTION AND BY-LAWS
OF THE
STATE MEDICAL ASSOCIATION
OF TEXAS

CONSTITUTION.

ARTICLE I.—NAME AND PURPOSES.

Sec. 1. The name and title of this organization shall be the State Medical Association of Texas.

Sec. 2. The purpose of this Association shall be to federate and bring into one compact organization the entire medical profession of the State of Texas and to unite with similar associations of other states to form the American Medical Association; to extend medical knowledge and advance medical science; to elevate the standard of medical education, and to secure the enactment and enforcement of just medical laws; to promote friendly intercourse among physicians; to guard and foster the material interests of its members, and to protect them against imposition; and to enlighten and direct public opinion in regard to the great problems of state medicine so that the profession shall become more capable and honorable within itself and more useful to the public, in the prevention and cure of disease, and in prolonging and adding comfort to life. The Association shall have the right and the authority through its proper agencies, when acting only in its protection, to regulate fair dealings among the members of the Association, to maintain and advance the standards of medical practice, and to enact By-Laws regulating such matters.

ARTICLE II.—COMPOSITION OF THE ASSOCIATION.

Sec. 1. This Association shall consist of the several component county medical societies, duly and constitutionally chartered, and its membership shall comprise only those members of said component county societies who have been duly elected; who have been reported to the office of the State Secretary as members, and for whom the State Secretary has received the annual per capita assessment, made in accordance with the By-Laws of the Association; provided, that the House of Delegates, upon nomination of component county societies, may elect to honorary membership those physicians of honorable standing who have contributed notably to the advance of ethical medicine, or who may have, because of age or other laudable reasons, reached a point of comparative inactivity in the practice of medicine, or entirely retired therefrom; provided, the county societies shall pay a membership fee in accordance with the By-Laws of the Association, and when so nominated and elected said honorary members shall be entitled to all of the privileges of membership as set out in this Constitution and By-Laws. Provided further, that county society secretaries shall include all such honorary members in their respective annual reports, with such notation thereon as will at once declare their status. Failure so to report honorary membership shall terminate the same, as in the case of other membership. It is also provided that county societies may elect to military membership those members who are at the time serving with the Armed Forces of our country, including the Coast Guard, and such similar services in time of war, such membership to terminate with their discharge from service.

Sec. 2. The House of Delegates, upon nomination of the Board of Councilors and the approval of the county medical society in which the member resides, may elect any member of the Association who has rendered exceptional and distinguished service to scientific or organized medicine, or both, to the status of member emeritus. Any nomination to the status of membership emeritus shall be held by the Board of Councilors for a period of one year before recommendation thereupon is made to the House of Delegates. A two-thirds majority of the House of Delegates registered for the meeting shall be required for election. A member emeritus shall have all the prerogatives of membership, and shall not be required to pay dues. The distinction thus conferred may not be removed except by action of the House of Delegates, upon recommendation of the Board of Councilors.

Sec. 3. Only white physicians, holding the degree of Doctor of Medicine and legally registered to practice medicine in Texas, who do not hold themselves out as practitioners of sectarian medicine, and who subscribe to the Principles of Ethics of the American Medical Association, shall be admitted to membership; except that white medical officers of the federal government, and teachers in medical "Class A" schools, who do not practice medicine and who are not required to register under the Medical Practice Act of Texas, and who are for the time *bona fide* residents of the State of Texas, shall be eligible to membership.

Sec. 4. Any distinguished physician not a resident of this state, or any distinguished scientist not a physician and who is not eligible to membership in this Association, may become a "guest" during any annual session on invitation of the President of this Association, and shall be accorded the privilege of participating in all of the scientific work and social activities for that session.

Sec. 5. Members of other state medical associations, the families of members or physicians entitled to register in any capacity at the annual session of this Association, or other reputable citizens who may be invited to attend any of the meetings of the Association, may be registered as "visitors," and as such shall be privileged to participate in the several social and general activities of the session. It is further provided that any person of scientific attain-

*Prepared by direction of the Committee on Revision of the Constitution and By-Laws, December 14, 1947. The Constitution is published in full, but only those sections of the By-Laws containing proposed changes are published. Revisions from the July 1, 1947, edition of the Constitution and By-Laws are indicated by italics.

ment may be invited by the chairman of any scientific section to become a "visitor," and may be so registered for the purpose of appearing upon the program of the scientific section of an annual session, or participating in the discussion of a scientific section, provided that not more than two such "visitors" appear on the program of any scientific section in the same annual session; and provided further that approval of such invitation first be obtained from the Council on Scientific Work.

ARTICLE III.—OFFICERS.

Sec. 1. The officers of this Association shall be a President, a President-Elect, *a Vice-President*, a Secretary, a Treasurer, five Trustees, a Councilor for each councilor district, and *a Speaker of the House of Delegates.*

Sec. 2. The President shall automatically assume office at the expiration of his term as President-Elect. The President-Elect, *Vice-President*, and *Speaker of the House of Delegates* shall be elected for terms of one year each. The Secretary, Treasurer, and Councilors shall be elected for terms of three years each. The Trustees shall be elected for terms of five years each. All officers shall serve until their successors are elected and installed.

Sec. 3. The officers of this Association shall be elected by the House of Delegates on the morning of the last day of the annual session, and no person shall be elected to any such office who is not in attendance on that annual session, and who has not been a member of the Association for the preceding two years.

ARTICLE IV.—TRUSTEES.

Sec. 1. The business affairs of the Association shall be managed by a Board of Trustees, comprising five members, elected in accordance with this Constitution and By-Laws. All funds of the Association shall be subject to the exclusive control of the Board of Trustees, except as otherwise provided in this Constitution and By-Laws. The Board of Trustees shall decide all questions not specifically delegated to other authorities by this Constitution and By-Laws. It shall, in general, serve as a Board of Directors, within the meaning of the corporate laws of the State of Texas.

ARTICLE V.—BOARD OF COUNCILORS.

Sec. 1. A Board of Councilors, consisting of one member from each councilor district, is hereby constituted. All questions pertaining to medical ethics shall be referred to this Board, through channels and as provided for in this Constitution and By-Laws. The Board of Councilors shall have general supervision of component county societies, and district societies, and questions pertaining to such shall be referred to the Board, through channels, as provided for in this Constitution and By-Laws.

Article VI.—SESSIONS AND MEETINGS.

Sec. 1. The Association shall hold an annual session, during which there shall be held not less than one general meeting daily, which shall be open to all registered members and guests.

Sec. 2. The time and place for holding each annual session shall be fixed by the House of Delegates at the preceding annual session, or by the Executive Council, and the said Executive Council shall have the authority to change both the time and place of meeting, or either, to meet unforeseen emergencies, as hereinafter provided.

Sec. 3. Special sessions of the Association and the House of Delegates, either or both, *may be called by the President at his discretion, and shall be called by the Secretary on petition of thirty delegates.*

Article VII.—HOUSE OF DELEGATES.

Sec. 1. The House of Delegates shall constitute the legislative body of the Association. The membership of the House of Delegates shall consist of (1) Delegates, elected in accordance with this Constitution and By-Laws, and *ex-officio* (2) the President, the President-Elect, *the Vice-President*, the Secretary, and the Treasurer; (3) Councilors; (4) Trustees; (5) *the Speaker of the House of Delegates, and* (6) *the several chairmen of the respective councils.*

Sec. 2. The House of Delegates shall meet at the time of the annual session of the Association, in accordance with the By-Laws of the Association, and at such other times as may be provided for by the said By-Laws. *Forty members of the House of Delegates shall constitute a quorum.*

Sec. 3. In the event that an annual session of the House of Delegates may be prohibited by either the federal or the state government during a time of war or widespread civil disorder, the Speaker shall request the Secretary to call a meeting of the War Council at approximately the usual date of the annual session of the Association, or at a special session.

Article VIII.—COMPONENT COUNTY SOCIETIES.

Sec. 1. Component county societies shall be organized under the direction of the Board of Councilors, where the best interests of the profession shall indicate. Charters shall be issued to said component county societies by the State Secretary, countersigned by the President of the Association, upon the direction of the Board of Councilors.

Sec. 2. When so organized, component county societies shall have general jurisdiction over the medical affairs within their respective territories, in accordance with the provisions of this Constitution and By-Laws.

Article IX.—COUNCILOR DISTRICTS AND DISTRICT SOCIETIES.

Sec. 1. The House of Delegates shall divide the state into appropriate councilor districts.

Sec. 2. The House of Delegates shall provide for the organization and chartering of such district societies as will promote the best interests of the profession. Such societies shall be composed only of members of component county societies of their respective councilor districts, and shall be exclusively scientific and educational in character.

Article X.—SCIENTIFIC SECTIONS.

Sec. 1. The House of Delegates shall divide the scientific work of the Association into appropriate sections, and provide for their management.

Article XI.—FINANCE.

Sec. 1. The finances of the Association shall be in the general charge and keeping and under the general management of the Board of Trustees, except as may be provided otherwise by this Constitution and By-Laws.

Sec. 2. The House of Delegates shall provide for an equal per capita assessment of component county societies, and for the proper distribution of the amount so raised into the several funds of the Association, as established by the Board of Trustees or the House of Delegates; provided, that no assessment shall be made *by the county societies* upon honorary members or members emeritus of the State Medical Association elected in accordance with this Constitution and By-Laws.

Sec. 3. The Association, through its Board of Trustees, shall invest its money in such manner as may seem wise, appropriating the profits accruing therefrom to the several funds of the Association.

Sec. 4. The Trustees shall have the authority to receive volunteer contributions, for specific or general purposes, and shall dispose of said contribu-

tions in accordance with the terms of the donors, or its own judgment in the instance there are no such terms.

Sec. 5. The Association, through its Board of Trustees, shall have the authority to disburse its funds, in accordance with this Constitution and By-Laws. All appropriations made by the House of Delegates, or acts requiring the expenditure of funds, shall be approved by the Board of Trustees before becoming effective.

Article XII.—INCORPORATION.

Sec. 1. The Association shall have a common seal with power to break, change, or renew the same at pleasure.

Sec. 2. The Association shall have the authority to take out papers of incorporation under the corporate laws of the State of Texas.

Sec. 3. Component county societies shall have the authority to take out papers of incorporation, provided that said incorporation does not remove the said component county societies from the jurisdiction of this Association.

Sec. 4. The Association year shall be from January 1 to December 31, both dates inclusive. Membership shall be for the Association year. The fiscal year shall be established by the Board of Trustees.

Article XIII.—AMENDMENTS.

Sec. 1. The House of Delegates may amend any article of this Constitution by a two-thirds vote of *its members present and voting*, provided that such amendment shall have been presented in open meeting at the previous annual session, published in the official organ of the Association, and sent officially to each component county society at least two months before the session at which final action is to be taken.

Sec. 2. A complete revision of this Constitution may be accomplished by a two-thirds vote of the House of Delegates at any annual session, provided that such complete revision shall have been ordered in the preceding session, and the revised version shall have been published in the TEXAS STATE JOURNAL OF MEDICINE not later than approximately three months prior to the annual session in which the final vote thereon is to be taken.

BY-LAWS.

CHAPTER I.—MEMBERSHIP.

Sec. 1. The qualifications and requirements for membership shall be as stated in Article II, *Sections 1, 2, and 3*, of the Constitution of this Association.

Sec. 6. Secretaries of component county societies shall file their annual reports with the State Secretary not later than *February 1* of each year. The reports shall be made upon blanks furnished by the State Secretary. This blank shall be so arranged as to show a list of the officers and members of the societies; *lists of honorary, military, emeritus, and intern members;* a list of nonaffiliated physicians . . . (Remainder of section unchanged.)

CHAPTER II.—OFFICERS.

Sec. 2. The President shall be the real head of the medical profession of the state during his term of office. He shall, as far as practicable, visit the various sections of the state in the interest of the Association and its component societies, and the public health, in cooperation with the Councilors of the State Association. In general, the President shall perform such other duties as custom and parliamentary usage may require. He shall preside at all meetings of the Association *except* the House of Delegates, deliver an address to the Association during its annual session, and appoint all committees and fill all vacancies in office not otherwise provided for in this Constitution and By-Laws. He shall cooperate with officers, committees and councils of the Association, in the performance of their several duties, and shall endeavor so to coordinate the several activities of the Association, through the constituted agencies, that the maximum good results may be attained during his term of office.

Sec. 3. The President-Elect shall assist the President in the performance of his duties, and shall seek and be extended the opportunity thoroughly to familiarize himself with the duties of the office of President, which office he will automatically fill at the expiration of his term as President-Elect. *On the death, removal, or disability of both the President and the Vice-President, the President-Elect shall within ten days assemble the Executive Council for the purpose of electing a President for the unexpired term. In the interim the President-Elect shall serve as President pro tempore. The President-Elect shall nominate to the House of Delegates at the time of elections a member of the following councils: Council on Medical Defense, Council on Legislation, Council on Scientific Work, Council on Medical Economics, and Council on Medical Education and Hospitals; and shall appoint a member of the following standing committees: Committee on Cancer, Committee on Medical History, Committee on Tuberculosis, and Committee on Library Endowment.*

Sec. 4. *The Vice-President shall assist the President in the performance of his duties and shall perform such service as the President may request. In the event of the death, removal, or disability of the President, the Vice-President shall assume the office of the President.*

Sec. 5. The Secretary . . . (Central portion of section unchanged.) He shall annually make report to the House of Delegates, covering in brief the transactions of his office, and shall make such reports to the Board of Trustees (Deletion.) and the Board of Councilors as may be required of him by these bodies . . . (Remainder of section unchanged.)

Sec. 7. The Speaker of the House of Delegates may or may not be a delegate. He shall preside at all meetings of the House of Delegates. He shall appoint the reference committees and special committees of the House of Delegates. The terms of such committees shall end on adjournment of the House sine die. His duties shall be those of a presiding officer in accordance with parliamentary rules and customs. In the event of his absence from the House, a Speaker pro tempore shall be nominated from the floor and elected. Under the conditions specified in Art. VII, Sec. 3 of the Constitution, the Speaker shall request the Secretary to call a meeting of the War Council.

Sec. 8. The duties of the Trustees and Councilors shall be as stated in Chapters III and IV, respectively, of these By-Laws.

CHAPTER III.—BOARD OF TRUSTEES.

Sec. 1. The Board of Trustees shall have charge of all properties and moneys of the Association, and shall manage its financial affairs after the manner and with the usual authority of boards of directors of corporations under the laws of the State of Texas. The term of office of Trustee shall be five years, and elections shall be so arranged that one term expires each year. *Tenure of office as Trustee by election and by appointment, either or both, shall not exceed ten years.* At the first meeting of the Board following adjournment of the annual session. . . (Central portion of section unchanged.) . . . The Board of Trustees shall fix the salary of the Secretary and Treasurer. *The Board of Trustees shall appoint the Committee on Public Relations, determine succession, and select the chairman.* Regular meetings of the Board shall be held

immediately following adjournment of the annual session. . . . (Remainder of section unchanged.)

CHAPTER IV.—COUNCILORS.

Sec. 1. The House of Delegates shall elect a Councilor for each councilor district *upon a nomination made by the respective district society at its regular meeting. In the event that a nomination for a Councilor may not have been made by the respective district society, the delegates from the component county medical societies in the district concerned, meeting at the annual session, shall so nominate. If no nomination may come from the district concerned, a nomination shall be made from the floor of the House.* The term of office of Councilors shall be three years, and their election shall be arranged in such manner that one-third, as nearly as possible, shall be elected each year. Vacancies in the office of Councilors shall be filled by the President, for unexpired terms. *Tenure of office as Councilor by election and by appointment, either or both, shall not exceed nine years.*

Sec. 3. . . . (First portion of section unchanged.) The Councilor shall be the organizer, peace-maker, and censor for his district. He shall visit each county society at least once each year. (Remainder of section deleted.)

(DELETE CHAPTER V.—MEDICAL DEFENSE.)

Chapter V.—SESSIONS AND MEETINGS.

Sec. 1. The Association shall hold an annual session at such time and place as may be established by the House of Delegates or the Executive Council in accordance with the provisions of this Constitution and By-Laws. Special sessions may be held at any time or place, upon call of the President at his discretion, *or of the Secretary* upon petition of thirty delegates, as provided for in Section 3, *Article VI*, of the Constitution of the Association.

Sec. 3. The order of exercises and meetings as set forth in the official program, and published, shall be followed from day to day until completed, unless otherwise directed by vote of *the Council on Scientific Work.*

(Delete Sections 4, 5, and 6.)

Sec. 4. General meetings of the Association shall be held in accordance with Article VI of the Constitution. The President shall deliver his annual address at a general meeting. During the time of a general meeting, all social and scientific activities of the Association shall cease, regardless of provisions of the program or contingencies of any sort.

Sec. 5. The House of Delegates shall meet at such time and place as may be decided upon by its own act. (Deletion.) It shall be lawful for the House of Delegates to hold its first meeting of the annual session on the day preceding the convening of the said annual session.

Chapter VI.—HOUSE OF DELEGATES.

Sec. 1. It shall be lawful for the House of Delegates to meet in regular session on the day preceding the convening of the annual session, or in *special* session, as provided in these By-Laws. It shall meet from time to time throughout the annual session as may be necessary. (Deletion.) It may remain in session following final adjournment of the annual session, for the purpose of completing the business before it. The order of business of the House of Delegates shall be arranged in advance of its meetings, and, if possible, published to the members prior to its convening. It shall organize and function in accordance with *Article VII* of the Constitution of the Association.

Sec. 2. Component county societies . . . (Central portion of section unchanged.) Such delegates shall be elected by their respective component county societies, in accordance with Section 12, *Chapter X*, of these By-Laws.

Sec. 3. *The roll of the House of Delegates shall be called on convening at an annual session and thereafter only for the purpose of a record vote; provided, that the Speaker shall not allow the roll call to be used as dilatory tactics. The roll of the House during an annual session shall be those registered with the Reference Committee on Credentials. The roll of the House of Delegates shall be called on convening at a special session. Forty members of the House of Delegates shall constitute a quorum. The presence of a quorum shall be determined by the Secretary and shall be established by announcement of the Speaker.*

Sec. 8. . . . (Section unchanged with this addition.) *The length of time in the presentation of the report of an officer, a board, a council, or a committee to the House of Delegates shall not exceed twenty minutes. Such reports as may require more than twenty minutes in presentation shall be printed in full—or to any reasonable extent—in the Handbook and Minutes of the House.*

(Delete Section 10.)

Sec. 10. All meetings of the House of Delegates. . . . (Remainder of Section 11 unchanged.)

Sec. 11. The War Council shall consist of the Speaker of the House of Delegates, the President, the President-Elect, the Secretary, and the Trustees. The Speaker and the Secretary shall be respectively chairman and secretary of the War Council. The War Council shall have the responsibility and authority of the House of Delegates to receive and act on the reports of officers, boards, councils, and committees, to legislate, to elect the nominees of the President-Elect to the respective councils, to elect and to install officers in absentia; all in accordance with the Constitution and By-Laws of the Association; provided, that a member of the Association may be elected to any office without being present at the meeting.

Chapter VII.—ELECTIONS.

(Delete footnote: Resolution, Election of Officers.)

Sec. 1. *The House of Delegates on the morning of the last day of the annual session shall elect the President-Elect, the Vice-President, the Secretary every third year, the Treasurer every third year, a Trustee, five Councilors, the Speaker, and one member each of the several Councils, the delegates and alternate delegates to the American Medical Association; and shall select the place for and the time of the following annual session.* Nominations shall be from the floor of the House, and by members of the House . . . (Remainder of section unchanged.)

Chapter VIII.—COMMITTEES.

(Delete footnote: Resolution, Advisory Council of Past Presidents.)

Sec. 1. In addition to the officers named in Article III of the Constitution, the activities of the Association shall be carried on by such committees as may be established by the House of Delegates or the President, in accordance with this Constitution and By-Laws. Committees shall be classified as follows: (*a*) *councils*, (*b*) standing committees, (*c*) special committees, (*d*) reference committees, and (*e*) special delegates.

Sec. 2. The Speaker of the House of Delegates shall appoint the reference committees. The Board of Trustees shall appoint the Committee on Public Relations. The President-Elect shall nominate one member each of the several councils, except the Executive Council and War Council; and shall appoint one member each of the several standing committees, except the Committee on Public Relations.

The President shall appoint the special committees and special delegates. The President shall fill all vacancies in office by appointments for the unexpired term, except those of the President-Elect, Vice-President, Secretary, and Treasurer.

Sec. 3. (a) The councils of the Association shall be as follows: (1) Executive Council, (2) Council on Medical Defense, (3) Council on Legislation, (4) Council on Scientific Work, (5) Council on Medical Economics, and (6) Council on Medical Education and Hospitals, and (7) War Council.

(b) The standing committees of the Association shall be as follows: (1) Committee on Cancer, (2) Committee on Medical History, (3) Committee on Public Relations, (4) Committee on Tuberculosis, and (5) Committee on Library Endowment.

(c) The special committees of the Association shall be as follows: (1) General Arrangements Committee for the Annual Session, (2) Committee on Memorial Exercises, (3) Committee on Scientific Exhibits, (4) Advisory Committee to the Woman's Auxiliary, (5) Advisory Committee to the Texas Society of Medical Technologists, and (6) such other committees as may be deemed advisable. The term of office of members of the special committees shall be one year.

Sec. 4. (a-1) The Executive Council shall ex-officio consist of the President, Vice-President, President-Elect, Secretary, Treasurer, Speaker of the House of Delegates, Chairman of the Board of Trustees, chairman of the Board of Councilors, chairman of the Council on Medical Defense, chairman of the Council on Legislation, chairman of the Council on Scientific Work, chairman of the Council on Medical Economics, and chairman of the Council on Medical Education and Hospitals. The Executive Council shall have regular meetings on the last Saturday in August and on the last Saturary in January. A special meeting may be called by the President at his discretion. The chairman and secretary of the Executive Council shall be respectively the President and Secretary of the Association. It shall be the duty of this Council in the interim between annual sessions to advise the officers, councils, and committees of the Association in the management and coordination of its several activities, to administer the affairs assigned to it by the House of Delegates, to fix the policy of the Association subject to the affirmative approval of the ensuing House of Delegates; provided, that the approval of a resolution or motion in contravention with a policy adopted by the House of Delegates shall require a majority of three-fourths of those present. If for any reason a member of the Association holding any office may not perform the duties of such office, the Executive Council shall request the President to call for the resignation of said member. Within ten days after the death, disability, or removal of both the President and Vice-President, the Executive Council shall assemble on call of the President-Elect for the purpose of electing a President for the unexpired term. In the interim the President-Elect shall serve as President pro tempore. A quorum shall consist of seven members.

Sec. 5. (a-2) The Council on Medical Defense shall consist of five members, each with a term of office for five years and with one term expiring each year. Succession in office shall be on nomination by the President-Elect at the time of election of officers. A nomination may be made from the floor of the House. Tenure of office by appointment and election, either or both, shall not be more than ten years. When a vacancy may occur in the Council by death, resignation, or removal, the President shall appoint a successor for the unexpired term. The President shall appoint the chairman when the position may become vacant. The President and the Secretary of the Association shall be ex-officio members of the Council, and the Secretary shall act as its secretary. The chairman of the Council shall be an ex-officio member of the House of Delegates and the Executive Council.

The Medical Defense Fund shall be a special fund entrusted to the Board of Trustees for investment and re-investment. The annual income of the fund shall be allocated to the payment of benefits to the members in good standing of the Association, and the balance remaining shall revert either to the corpus of the Medical Defense Fund or to the General Fund. No loan shall be made from the corpus of this fund to any other activity of the Association.

It shall be the duty of this Council to investigate all claims of malpractice made against members in good standing of the Association; but the Council, or any member thereof, shall not obligate the Association to pay a judgment against any member. In the event a member in good standing may have a policy of medical indemnity insurance, this Council shall decide whether it will cooperate in the defense of a suit. A member of the Association threatened with suit for malpractice shall immediately notify the Secretary of the Association. The Secretary or any member of the Council shall proceed immediately to investigate the circumstances reported, in the manner and after the procedure as established in the rules of the Council on Medical Defense. The member sued or threatened with suit, and under investigation by the Council, shall be consulted and have the full confidence of the Council in all transactions connected with any such investigations. The Council on Medical Defense shall have the authority to require of a county society, or of the president thereof, the appointment of a committee of investigation in any such case, and it may direct the said committee so appointed to report to the Council on Medical Defense and not to the society from which it was appointed.

Sec. 6. (a-3) The Council on Legislation shall consist of five members, each with a term of office for five years and with one term expiring each year. Succession in office shall be on nomination by the President-Elect at the time of election of officers. A nomination may be made from the floor of the House. Tenure of office by appointment and election, either or both, shall not be more than ten years. When a vacancy may occur in the Council by death, resignation, or removal, the President shall appoint a successor for the unexpired term. The President shall appoint the chairman when the position may become vacant. The President and the Secretary of the Association shall be ex-officio members of the Council, and the Secretary shall act as its secretary. The Chairman of the Council shall be an ex-officio member of the House of Delegates and the Executive Council.

It shall be the duty of the Council on Legislation to represent the Association in carrying out its legislative policy as established by the House of Delegates or by the Executive Council. The Council on Legislation shall exercise its discretion in dealing with legislative matters upon which the House of Delegates and Executive Council may have issued no instructions.

(Delete Section 7.)

Sec. 7. (a-4) The Council on Scientific Work shall consist of five members, each with a term of office for five years and with one term expiring each year. Succession in office shall be on nomination by the President-Elect at the time of election of officers. A nomination may be made from the floor of the House. Tenure of office by appointment and election, either or both, shall not be more than ten years. When a vacancy may occur in the

Council by death, resignation, or removal, the President shall appoint a successor for the unexpired term. The President shall appoint the chairman when the position may become vacant. The President and Secretary of the Association shall be ex-officio members of the Council and the Secretary shall act as its secretary. The chairman of the Council shall be an ex-officio member of the House of Delegates and the Executive Council.

The Council shall establish regulations for the guidance of the scientific sections and for the preparation, publication, and presentation of the scientific program at the annual session. The Council shall advise with the President and Secretary on the arrangements of the scientific program at the annual session. The Council shall report to the House of Delegates or to the Executive Council on such subjects of scientific interest as may be referred to it. The Council may consult with representatives of other organizations on scientific subjects of mutual concern and shall report its findings and recommendations to the House of Delegates or Executive Council.

Sec. 8. (a-5) The Council on Medical Economics shall consist of five members, each with a term of office for five years and with one term expiring each year. Succession in office shall be on nomination by the President-Elect at the time of election of officers. A nomination may be made from the floor of the House. Tenure of office by appointment and election, either or both, shall not be more than ten years. When a vacancy may occur in the Council by death, resignation, or removal, the President shall appoint a successor for the unexpired term. The President shall appoint the chairman when the position may become vacant. The President and Secretary of the Association shall be ex-officio members of the Council and the Secretary shall act as its secretary. The chairman of the Council shall be an ex-officio member of the House of Delegates and the Executive Council.

It shall be the duty of this Council to investigate, consider, and make recommendations on such questions on medical economics as may be referred to it. It shall accumulate data on the costs of medical service. It shall investigate and report on the medical economics of private practice and on that of intermediary agencies. The Council may consult with representatives of other organizations on subjects involving medical economics of mutual concern and shall report its findings and recommendations to the House of Delegates or Executive Council. The Council shall endeavor to answer such questions on medical economics as may be submitted by members of the Association.

Sec. 9. (a-6) The Council on Medical Education and Hospitals shall consist of five members. The members of the first Council shall be nominated for one, two, three, four, and five years, and thereafter the President-Elect shall nominate a successor on the expiration of a term of office at the time of election of officers. A nomination may be made from the floor of the House. Tenure of office by appointment and election, either or both, shall not be more than ten years. When a vacancy may occur in the Council by death, resignation, or removal, the President shall appoint a successor for the unexpired term. The President shall appoint the chairman when the position may become vacant. The President and the Secretary of the Association shall be ex-officio members of the Council, and the Secretary shall act as its secretary. The chairman of the Council shall be an ex-officio member of the House of Delegates and the Executive Council.

It shall be the duty of the Council to investigate, consider, and make recommendations on such subjects as education in medical schools, training of interns and residents, and postgraduate instruction of physicians; the hospital care of the sick, the relation of physicians to hospitals, and to allied occupations, and the relation of physicians to public health. This may be done on the Council's initiative and shall be done on such subjects as may be referred to it by the House of Delegates, Executive Council, or the President. The Council may consult with representatives of other organizations on subjects of mutual concern, and shall report its findings and recommendations to the House of Delegates or Executive Council.

Sec. 10. (b-1) The Committee on Cancer shall consist of five members, each with a term of office for five years and with one term expiring each year. Succession in office shall be on appointment by the President-Elect at the time of election of officers and shall not require confirmation by the House, provided that the Speaker shall allow a motion, if made, requesting another appointment. Tenure in office shall not be more than ten years. The President shall appoint the chairman when the position may become vacant. The Committee on Cancer may appoint local and district committees and delegate to these such duties as it may decree.

It shall be the duty of the Committee on Cancer and its subcommittees to supervise any cancer activities of the Association, inaugurate and promote educational movements among physicians and the public of the state for the control of cancer, and it shall present to the House of Delegates at each annual session a report covering its activities during the preceding year, with such recommendations for action as it may care to make.

Sec. 11. (b-2) The Committee on Medical History shall consist of five members, each with a term of office of five years and with one term expiring each year. Succession in office shall be on appointment by the President-Elect at the time of election of officers and shall not require confirmation by the House; provided, that the Speaker shall allow a motion, if made, requesting another appointment. Tenure in office shall not be more than ten years. The President shall appoint the chairman when the position may become vacant. It shall be the duty of this committee to collect and preserve to best advantage all records and data pertaining to the Association and its activities which may be of interest to posterity, and which may eventually contribute to the compilation of a comprehensive medical history of Texas. The records and data collected by the Committee shall be deposited with the Secretary.

Sec. 12. (b-3) The Committee on Public Relations . . . (Remainder of Section 9 unchanged.)

Sec. 13. (b-4) The Committee on Tuberculosis shall consist of five members, each with a term of office for five years and with one term expiring each year. Succession in office shall be on appointment by the President-Elect at the time of election of officers and shall not require confirmation by the House; provided, that the Speaker shall allow a motion, if made, requesting another appointment. Tenure in office shall not be more than ten years. The President shall appoint the chairman when the position may become vacant.

It shall be the duty of this Committee to give continued study and consideration to the problem of tuberculosis in all of its phases, cooperate with the State Health Department and constituted health authorities throughout the state in the campaign of prevention and suppression of the disease, and promote and direct activities of the State Medical Association of Texas in this connection.

Sec. 14. (b-5) The Committee on Library Endowment shall consist of five members, each with a term of office for five years and with one term expiring each year. Succession in office shall be on

appointment by the President-Elect at the time of election of officers and shall not require confirmation by the House; provided, that the Speaker shall allow a motion, if made, requesting another appointment. Tenure in office shall not be more than ten years. The President shall appoint the chairman when the position may become vacant.

It shall be the duty of this Committee to secure donations and endowment funds for the Texas Memorial Medical Library Association, and to keep the membership of the Association acquainted with the services offered by the Library to members and the public, and its needs for continuous greater development and greater services. This Committee shall present to each annual meeting of the House of Delegates a report covering its activities during the preceding year.

(Delete Section 15.)

Sec. 15. (c-1) The General Arrangements Committee for the Annual Session . . . (Remainder of Section 16 unchanged.)

Sec. 16. (c-2) The Committee on Memorial Exercises . . . (Remainder of Section 17 unchanged.)

Sec. 17. (c-6) Other special committees for special purposes may be appointed by the President upon his own initiative or at the request or the direction of the House of Delegates for a term of office not to exceed one year. The purpose of the special committee and the number of its members shall be clearly stated. A special committee may be appointed to consider a limited field of the general subject or policy assigned to an officer, board, council, or standing committee; but special committees shall not be appointed to perform services otherwise delegated in these By-Laws.

Sec. 18. (d) As soon as practicable after the organization of the House of Delegates, the *Speaker* shall appoint the following reference committees, to consist of *seven* members each . . . (Remainder of Section 19 unchanged.)

Sec. 19. (e) The President shall appoint such special delegates and representatives as he may deem desirable or as may be ordered by the House of Delegates.

Sec. 20. Officers, *boards, councils,* standing committees, and, *upon instructions of the President special committees and special delegates* shall be required to file duplicates of their respective reports with the State Secretary *thirty* days prior to the annual session . . . (Remainder of Section 21 unchanged.)

Chapter IX.—SCIENTIFIC SECTIONS.

Sec. 3. The President shall appoint a chairman (Deletion.) for each section. He shall appoint the secretary of each section upon the nomination of the chairman of the section . . . (Remainder of section unchanged.)

Sec. 6. Papers presented by members of the Association must first have been read in full before a component county society, or, where a component county society is not available for this purpose, the district society of which the author is a member. The secretary of such society shall certify to the section secretary that such paper has been so read; *provided, that the requirements of this section shall be satisfied when the secretary of a component county society with three hundred or more members may, at a meeting of his society, read by title a paper previously read in full before an affiliated special society accepted for this purpose by the Council on Scientific Work; and shall so certify such papers to officers of the respective scientific sections* . . . (Remainder of section unchanged.)

Chapter X.—COUNTY SOCIETIES.

Sec. 1. Five or more physicians of any county or group of counties in this state, who possess the qualifications for membership in the State Association as set out in *Section 3,* Article II of the Constitution, may, by applying to the Board of Councilors . . . (Remainder of section unchanged.)

Sec. 3. *(a)* Component county societies shall have the right . . . (Remainder of paragraph unchanged.)

(b) Component county societies with three hundred or more members shall have the right to authorize an executive board to perform the following duties: to transact the routine business of the county society, to refer questions of policy to the county society for decision, to receive and act on applications for membership, and to conduct the trial of a member and render a verdict.

Sec. 6. County medical societies may elect to military membership those members who are in the Armed Forces of our country during the period of a war. (Deletion.) It is provided that military membership will not include subscription to the TEXAS STATE JOURNAL OF MEDICINE.

Sec. 9. A member of a component county society . . . (Central portion unchanged.) . . . or join another and more conveniently located society, as provided for in Section 7, *Chapter X,* of these By-Laws.

Sec. 13. Each component county society shall be entitled to representation in the House of Delegates on the following basis: One delegate for the first one hundred members or less, and one additional delegate for each additional one hundred members or fraction thereof. (Section 2, *Chapter VI,* these By-Laws.) The term of office of delegates shall be two years, and their election shall be, as far as possible, so arranged that not more than half of the vacancies shall occur in any one year. There shall be an alternate delegate elected for each delegate, and it shall be lawful for any alternate delegate to serve in the place of any absent principal, upon the proper transfer of credentials. (Sections 4 and 6, *Chapter VI,* these By-Laws.) . . . (Remainder of section unchanged.)

Sec. 14. Secretaries of component county societies . . . shall make annual reports to the State Secretary not later than *February 1* of each year . . . (Remainder of section unchanged.)

Sec. 18. The accused in any case . . . shall be allowed to secure through the use of a competent stenographer, a verbatim report of the evidence adduced in the investigation of his case by the Board of Censors (*Section 15, Chapter X,* these By-Laws), and he shall be entitled to counsel when his case is considered by the county society (*Section 17, Chapter X,* of these By-Laws) . . . (Remainder of section unchanged.)

Sec. 22. The official year for county societies . . . (Central portion of section unchanged.) Such former members may be reinstated by county society secretaries upon the payment of dues for the current year, if paid within the year; (Deletion.) and subscription to the TEXAS STATE JOURNAL OF MEDICINE may be extended to cover the period between January 1 and the date upon which the dues are actually paid.

Chapter XI.—DISTRICT SOCIETIES.

Sec. 1. The Board of Councilors shall organize the profession of each councilor district into a district society when practicable, and shall cause charters to be issued to said district societies in the manner and after the form prescribed for county societies (Section 5, Chapter IV, and Sections 1 and 2, *Chapter X,* these By-Laws.) . . . (Remainder of section unchanged.)

Chapter XII.—COUNCILOR DISTRICTS.

Sec. 1. The House of Delegates, acting upon the

advice of the Board of Councilors, shall divide the state into appropriate councilor districts, as provided for in *Article IX* of the Constitution of the State Medical Association.

Chapter XIII.—ASSESSMENTS.

Sec. 1. An assessment of $20 per capita on the membership of component county societies shall be levied each year, and shall constitute the State Association dues. This assessment shall be collected by the *component* county society secretaries *or treasurers*, and forwarded without delay to the State Association Secretary, and the State Secretary shall duly receipt therefor. This assessment, when so collected and forwarded, shall be divided by the Trustees as follows: Subscription to the TEXAS STATE JOURNAL OF MEDICINE, $3; and to the *General Fund, $17.*

Sec. 2. Members of county medical societies who are serving internships and residencies in hospitals, as a part of their educational qualifications, and who are not in private practice, shall be assessed dues of $4 per annum.

(Delete Section 3.)

Sec. 3. Honorary members, as provided for in the Constitution and these By-Laws of the State Medical Association of Texas, shall be assessed dues of $4 per annum, to be paid by the county societies concerned. (Remainder of section deleted.)

Sec. 4. That portion of the assessment provided herein for subscription to the TEXAS STATE JOURNAL OF MEDICINE . . . (Remainder of Section 6 unchanged.)

(Delete Section 5.)

Sec. 5. The Trustees may divide the General Fund . . . (Remainder of Section 7 unchanged.)

Chapter XIV.—RULES OF CONDUCT.

Chapter XV.—RULES OF ORDER.

Chapter XVI.—AMENDMENTS.

MISCELLANEOUS

COMING MEETINGS AND CLINICS

State Medical Association of Texas, Houston, April 26-29, 1948. Dr. B. E. Pickett, Sr., Carrizo Springs, President; Dr. Holman Taylor, 1404 W. El Paso St., Fort Worth 3, Secretary.

American Medical Association, House of Delegates, Cleveland, January 5-6, 1948; Special Scientific Session, Cleveland, January 7-8, 1948; Regular General Session, Chicago, June 21-25, 1948. Dr. Edward L. Bortz, Philadelphia, President; Dr. George F. Lull, 535 North Dearborn St., Chicago 10, Secretary.

NATIONAL AND REGIONAL

American Academy of Allergy. Dr. Will C. Sprain, New York, President; Dr. Theodore L. Squier, 424 East Wisconsin Ave., Milwaukee, Secretary.

American Academy of Dermatology and Syphilology. Dr. Edward A. Oliver, Chicago, President; Dr. Earl D. Osborne, 471 Delaware Ave., Buffalo, N. Y., Secretary.

American Academy of General Practice. Dr. Paul A. Davis, Akron, Ohio, President; Dr. Mac F. Cahal, 20 N. Wacker Drive, Chicago 6, Acting Executive Secretary.

American Academy of Neurological Surgery. Dr. William S. Keith, Toronto, Canada, President; Dr. T. C. Erickson, 1300 University Ave., Madison 5, Wis., Secretary.

American Academy of Ophthalmology and Otolaryngology, Chicago, October 12-17, 1948. Dr. Alan C. Woods, Baltimore, President; Dr. W. L. Benedict, Mayo Clinic, Rochester, Minn., Secretary.

American Academy of Pediatrics. Dr. John A. Toomey, Cleveland, President; Dr. C. G. Grulee, 636 Church St., Evanston, Ill., Secretary.

American Association for Thoracic Surgery, Quebec, 1948. Dr. Alton Ochsner, New Orleans, President; Dr. Brian Blades, George Washington University School of Medicine, Washington, D. C., Secretary.

American Association of Genito-Urinary Surgeons, Skytop, Pa., May 12-14, 1948. Dr. C. E. Burford, St. Louis, President; Dr. Norris J. Heckel, 122 S. Michigan Ave., Chicago, Secretary.

American Association of Obstetricians, Gynecologists, and Abdominal Surgeons, Hot Springs, Va., September 9-11, 1948. Dr. Robert D. Mussey, Rochester, Minn., President; Dr. L. A. Calkins, University of Kansas Medical Center, Kansas City, 3, Secretary.

American College of Physicians, San Francisco, April 19-23, 1948. Dr. Hugh J. Morgan, Nashville, Tenn., President; Mr. E. R. Loveland, 4200 Pine St., Philadelphia 4, Secretary.

American College of Radiology, Chicago, June 19-20, 1948. Dr. Edwin C. Ernst, St. Louis, President; Dr. Mac F. Cahal, 20 N. Wacker Drive, Chicago 6, Secretary.

American College of Surgeons. Dr. Irvin Abell, Louisville, Ky., President; Dr. Paul B. Magnuson, 40 E. Erie St., Chicago 11, Secretary.

American Congress of Physical Medicine. Dr. H. Worley Kendall, Chicago, President; Dr. Richard Kovacs, 2 E. 88th St., New York 28, Secretary.

American Dermatological Association, Coronado, Calif., April 26-29, 1948. Dr. J. Gardner Hopkins, New York, President; Dr. Harry R. Foerster, 208 E. Wisconsin Ave., Milwaukee, Secretary.

American Gastro-Enterological Association, Atlantic City, April 30-May 1, 1948. Dr. Henry L. Bockus, Philadelphia; Dr. Dwight L. Wilbur, 655 Sutter St., San Francisco, Secretary.

American Gynecological Society. Dr. Edmund A. Schumann, Philadelphia, President; Dr. Howard Taylor, Jr., 842 Park Ave., New York 21, Secretary.

American Hospital Association, Atlantic City, September 20-24, 1948. Mr. Graham L. Davis, Battle Creek, Mich., President; Mr. George P. Bugbee, 18 E. Division St., Chicago, Executive Secretary.

American Laryngological, Rhinological and Otological Society, Atlantic City, April 7-9, 1948. Dr. Lyman G. Richards, Brookline, Mass., President; Dr. C. S. Nash, 277 Alexander St., Rochester 7, N. Y., Secretary.

American Neurological Association. Dr. George Wilson, Philadelphia, President; Dr. H. Houston Merritt, Montefiore Hospital, New York 67, Secretary.

American Ophthalmological Society, Hot Springs, Va., May 16-19, 1948. Dr. Henry C. Haden, Houston, President; Dr. W. S. Atkinson, 129 Clinton St., Watertown, N. Y., Secretary.

American Orthopedic Association. Dr. Robert I. Harris, Toronto, Canada, President; Dr. C. Leslie Mitchell, Henry Ford Hospital, Detroit 2, Secretary.

American Otological Society. Dr. B. J. McMahon, St. Louis, President; Dr. Gordon D. Hoople, 713 E. Genesee St., Syracuse 3, N. Y., Secretary.

American Pediatric Society. Dr. Grover F. Powers, New Haven, Conn., President; Dr. Henry G. Poncher, 1819 W. Polk St., Chicago 12, Secretary.

American Proctologic Society, Chicago, June, 1948. Dr. George H. Thiele, Kansas City, Mo., President; Dr. Vernon G. Jeurink, 1612 Tremont Pl., Denver 2, Secretary.

American Psychiatric Association, Portland, Ore., May 9-14, 1948. Dr. Winfred Overholser, Washington, D. C., President; Dr. Leo H. Bartemeier, General Motors Bldg., Detroit, Secretary.

American Public Health Association. Dr. Harry S. Mustard, New York, President; Dr. R. M. Atwater, 1790 Broadway, New York 19, Secretary.

American Roentgen Ray Society, Chicago, September 14-18, 1948. Dr. J. B. Edwards, St. Louis, President; Dr. H. Dabney Kerr, University Hospital, Iowa City, Secretary.

American Society of Anesthesiologists. Dr. Edward B. Tuohy, Rochester, Minn., President; Dr. Curtiss B. Hickcox, 745 Fifth Ave., New York 22, Secretary.

American Society of Clinical Pathologists. Dr. Theodore J. Curphey, Hempstead, N. Y., President; Dr. A. S. Giordano, 531 N. Main St., South Bend, Ind., Secretary.

American Surgical Association. Dr. Elliott C. Cutler, Boston, President; Dr. W. M. Firor, Johns Hopkins Hospital, Baltimore 5, Secretary.

American Urological Association, Boston, May 17-20, 1948. Dr. Charles McMartin, Omaha, Neb., President; Dr. T. D. Moore, 899 Madison Ave., Memphis 3, Tenn., Secretary.

Association of American Physicians, Chicago, June 18-19, 1948. Dr. A. H. Gordon, Montreal, President; Dr. H. M. Thomas, Jr., 1201 N. Calvert St., Baltimore 2, Secretary.

Central Neuropsychiatric Association, Kansas City, Fall, 1948. Dr. William C. Menninger, Topeka, Kan., President; Dr. Lee Eaton, Mayo Clinic, Rochester, Minn., Secretary.

International College of Surgeons, U. S. Chapter. Dr. Herbert Acuff, Knoxville, Tenn., President; Dr. Louis J. Gariepy, 16401 Grand River Ave., Detroit 27, Secretary.

National Tuberculosis Association. Dr. James R. Reuling, Bayside, N. Y., President; Dr. H. Stuart Willis, 1790 Broadway, New York 19, Secretary.

Radiological Society of North America. Dr. Frederick W. O'Brien, Boston, President; Dr. D. S. Childs, Medical Arts Bldg., Syracuse 2, N. Y., Secretary.

Southern Medical Association. Dr. A. LeDoux, New Orleans, President; C. P. Loranz, Empire Building, Birmingham, Ala., Secretary-Manager.

Southern Psychiatric Association. Dr. Guy F. Witt, Dallas, President; Dr. Newdigate M. Owensby, 384 Peachtree St. N. E., Atlanta, Ga., Secretary.

Southern Surgical Association. Dr. Frank S. Johns, Richmond, Va., President; Dr. Alfred Blalock, Johns Hopkins Hospital, Baltimore 5, Secretary.

Southwest Allergy Forum, Oklahoma City, Okla., April 5-6, 1948. Dr. Herbert J. Rinkel, Kansas City, Mo., President; Dr. Fannie Lou Leney, 1200 N. Walker, Oklahoma City, Okla., Secretary.

Southwest Medical Association, El Paso, November, 1948. Dr. J. M. Greer, Phoenix, Ariz., President; Dr. Wickliffe R. Curtis, First National Bank Building, El Paso, Secretary.

Southwest Regional Cancer Conference, Fort Worth, Fall, 1948. Secretary, 209 Medical Arts Bldg., Fort Worth.

United States-Mexico Border Public Health Association, Laredo, Texas, and Nuevo Laredo, Mexico, March 20-22, 1948. Dr. James R. Scott, Santa Fe, N. Mex., President; Dr. M. F. Haralson, 314 U. S. Court House, El Paso, Secretary.

STATE

Texas Association of Medical Anesthetists, Houston, April 26-29, 1948. Dr. Robert A. Miller, San Antonio, President; Dr. Harvey C. Slocum, 928 Strand, Galveston, Secretary.

Texas Association of Obstetricians and Gynecologists, Houston, October, 1948. Dr. Warren E. Massey, Dallas, President; Dr. George Adam, 4115 Fannin, Houston, Secretary.

Texas Chapter, American College of Chest Physicians, Houston, April 26-29, 1948. Dr. H. Frank Carman, Dallas, President; Dr. Charles J. Koerth, Kerrville, Secretary.

Texas Club of Internists. Dr. N. D. Buie, Marlin, President; Dr. Victor E. Schulze, San Angelo, Secretary.

Texas Hospital Association, Dallas, March 4-6, 1948. Mr. Thomas H. Head, San Angelo, President; Mrs. Ruth Barnhart, 2210 Main St., Dallas, Secretary.

Texas Neuropsychiatric Association, Dr. A. Hauser, Houston, President; Dr. David Wade, 604 Capital National Bank Bldg., Austin, Secretary.

Texas Orthopedic Society, Houston, April 26-29, 1948. Dr. Walter Stuck, San Antonio, President; Dr. Ruth Jackson, 3629 Fairmount St., Dallas, Secretary.

Texas Pediatric Society. Dr. C. B. Alexander, San Antonio, President; Dr. John E. Ashby, 3610 Fairmount, Dallas, Secretary.

Texas Public Health Association, Houston, February, 1948. Dr. S. W. Bohls, San Antonio, President; Mr. Earle W. Sudderth, Dallas County Health Department, Court House, Dallas, Secretary.

Texas Radiological Society, Temple, January 17, 1948. Dr. C. A. Stevenson, Temple, President; Dr. R. P. O'Bannon, 650 Fifth Ave., Fort Worth, Secretary.

Texas Railway and Traumatic Surgical Association, Houston, April 26-29, 1948. Dr. Linwood H. Denman, Lufkin, President; Dr. Ross Trigg, First National Bank Bldg., Fort Worth, Secretary.

Texas Society for Mental Hygiene, El Paso, March 11-13, 1948. Dr. Ozro T. Woods, Dallas, President; Mrs. Elizabeth F. Gardner, 1617 Watchhill Road, Austin 21, Executive Secretary.

Texas Society of Gastroenterologists and Proctologists, Houston, April 26-29, 1948. Dr. George Underwood, Dallas, President; Dr. Carl Giesecke, 1602 Nix Professional Bldg., San Antonio, Secretary.

Texas Society of Ophthalmology and Otolaryngology, Fort Worth, 1948. Dr. S. N. Key, Sr., Austin, President; Dr. John L. Matthews, 929 Nix Professional Bldg., San Antonio, Secretary.

Texas Society of Pathologists, Galveston, January 25, 1948. Dr. D. A. Todd, San Antonio, President; Dr. C. T. Ashworth, Southwestern Medical College, Dallas, Secretary.

Texas State Heart Association, Houston, April 26-29, 1948. Dr. DeWitt Neighbors, Fort Worth, President; Dr. Merritt B. Whitten, 1421 Medical Arts Bldg., Dallas, Secretary.

Texas State Urological Society, Dallas, February 2, 1948. Dr. Jo C. Alexander, Dallas, President; Dr. Hub Isaacks, Medical Arts Bldg., Fort Worth, Secretary.

Texas Surgical Society, Fort Worth, April, 1948. Dr. G. W. N. Eggers, Galveston, President; Dr. Truman G. Blocker, University of Texas Medical Branch, Galveston, Secretary.

Texas Tuberculosis Association. F. K. Dougharty, Liberty, President; Miss Pansy Nichols, 700 Brazos, Austin, Executive Secretary.

DISTRICT

Second. Big Spring, District Society. Dr. R. B. G. Cowper, Big Spring, President; Dr. H. A. Briggs, Midland, Secretary.

Third, Panhandle, District Medical Society. Dr. C. E. High, Pampa, President; Dr. Kenneth Flamm, Amarillo, Secretary.

Fourth District Society, Ballinger. Dr. J. C. Young, Coleman, President; Dr. Charles F. Bailey, Ballinger, Secretary.

Fifth and Sixth Districts Society. Dr. Kleberg Eckhardt, Corpus Christi, President; Dr. Charles Tennjson, Nix Professional Building, San Antonio, Secretary.

Seventh, Austin, District Society, Spring, 1948. Dr. M. I. Brown, Austin, President; Dr. David Wade, 604 Capital National Bank Bldg., Austin, Secretary.

Eighth, Ninth and Tenth Districts, South Texas, Society. Dr. T. O. Woolley, Orange, President; Dr. James Greenwood, Jr., 518 Medical Arts Bldg., Houston 2, Secretary.

Eleventh District Society, Palestine, Spring, 1948. Dr. Robert Bell, Palestine, President; Dr. C. B. Young, 929 S. Confederate, Tyler, Secretary.

Twelfth, Central Texas, District Society, Waco, January 13, 1948. Dr. W. Howard Wells, Waco, President; Dr. H. F. Connally, Jr., Amicable Bldg., Waco., Secretary.

Thirteenth, Northwest, District Society. Dr. Fred Harrell, Olney, President; Dr. S. W. Wilson, Medical Arts Bldg., Fort Worth, Secretary.

Fourteenth, North Texas District Society. Dr. H. Frank Carman, Dallas, President; Dr. James Jeter, Ennis, Secretary.

Fifteenth, Northeast, District Society, Daingerfield, Fall, 1948. Dr. W. S. Terry, Jefferson, President; Dr. James Harris, Marshall, Secretary.

CLINICS

Dallas Southern Clinical Society, Dallas, March 15-18, 1948. Miss Thelma J. Webb, Medical Arts Bldg., Dallas 1, Executive Secretary.

International Postgraduate Medical Assembly of Southwest Texas, San Antonio, January 27-29, 1948. Dr. W. W. Bondurant, Jr., 711 E. Houston St., San Antonio, President.

NEW A. M. A. RADIO SERIES

A new series of educational radio broadcasts, "Doctors Today," was inaugurated by the American Medical Association in cooperation with the National Broadcasting Company on Saturday afternoon, December 13, and will continue on succeeding Saturdays from 3:30 until 4 o'clock for twenty-six weeks.

The broadcasts, offering an interpretation of modern trends in medicine, will be in thirty minute dramatized form or drama-narrative with sound effects, music, and in some instances distinguished guest speakers.

Each program will be an independent entity. Among the early topics scheduled are plastic surgery; heart surgery; radioactive isotopes; the "punch drunk" state; alcoholism; federal control of drugs, and medical defense against the atomic bomb.

CANCER CONFERENCES

Tumor conferences under the sponsorship of the Texas Division, American Cancer Society will be held in Galveston on January 24 and in El Paso on January 27, Mr. J. Louis Neff, Houston, executive director, has announced. Dr. Theodore J. Curphey, Hempstead, N. Y., president of the American Society of Clinical Pathologists, will be the principal speaker.

The Galveston conference will last all day January 24 at the University of Texas School of Medicine. A banquet will be held in the evening. Dr. Curphey will remain in Galveston the following day for the annual meeting of the Texas Society of Pathologists.

On January 27, the staff of the tumor clinic at El Paso City-County Hospital will conduct a clinic teaching conference with Dr. Curphey and Dr. Louis Hempelmann, St. Louis, an authority on atomic energy, as guest consultants. Dr. Curphey, Dr. Hempelmann, and Mr. Neff will speak that night at a meeting of El Paso County Medical Society.

Any interested physician may attend the tumor conferences without charge.

HOSPITAL PLANS PROGRESS

Announcement from the Hospital Survey and Construction Division of the State Health Department indicates that Texas is proceeding steadily along the course prescribed to secure federal assistance in the construction of hospitals. The State Board of Health was designated by the Fiftieth Legislature as the agency for administering the program authorized by Public Law 725 of the Seventy-Ninth Congress (Hill-Burton Bill), and a state enabling act (House Bill 503) became law on June 17, 1947, clearing the way for action. A state plan based on a survey of existing hospital and public health facilities was submitted September 19 to the Surgeon General of the U. S. Public Health Service, following its approval by the State Board of Health and the special Hospital Advisory Council appointed by the Governor, and a public hearing. The survey, begun in March,

1946, included information from every type of facility in the state having two or more beds for the overnight care of patients, with the exception of federal institutions.

A construction schedule to be approved by the Surgeon General is being worked out on a basis of need, intent to begin construction soon, ability of the sponsoring agency to meet two-thirds of the financial requirements for construction and to finance maintenance and operation for at least two years, and the maintenance of a balance between the various categories of facilities. The agreement of applicants to abide by regulations prescribing minimum standards of operation and maintenance will also be a consideration.

Numerous applications have been received by the State Health Department, and it is anticipated that final approval of some of the projects to receive federal funds will make construction possible in the immediate future. Thirty projects, most of them small hospitals in rural areas, have already been approved by the state agency. Additional applications will be received by the state agency and detailed information is available from that source.

TEXAS NEUROPSYCHIATRIC ASSOCIATION

Address of Welcome—Dr. A. D. Pattillo, Terrell.
Penicillin in Treatment of Neurosyphilis—Dr. James Scarborough, Rusk.
Discussion—Drs. Abe Hauser, Houston; Stephen Weisz, Dallas; Pearl Matthaei, San Antonio; A. D. Pattillo, Terrell; Carl Friedman, Waco; and C. H. Brown, Wichita Falls.
Prefrontal Lobotomy—Drs. C. C. Nash and Casey E. Patterson, Dallas.
5 Cases at Terrell State Hospital—Dr. A. D. Pattillo, Terrell.
Discussion—Drs. G. W. Day, Fort Worth; Abe Hauser, Houston; Stephen Weisz, Dallas; and C. W. Castner, Austin.
1 Case at Austin State School—Dr. C. W. Castner, Austin.
Discussion—Dr. Abe Hauser, Houston.
Basis of Training Techniques in Psychotherapy—Dr. Frank Pearcy, Dallas.
Discussion—Drs. Guy F. Witt, Dallas; Don P. Morris, Dallas; and Abe Hauser, Houston.

The Texas Neuropsychiatric Association met at the Terrell State Hospital, November 17, with thirty-nine members and guests registered. The scientific program outlined about was presented.

Upon motion by Dr. Guy F. Witt, Dallas, seconded by Dr. Wilmer Allison, Fort Worth, the society voted to invite the American Psychiatric Association to meet in Dallas in 1949 or 1950.

Dr. A. D. Pattillo and the staff of the Terrell State Hospital were hosts at a steak dinner following a tour of the hospital facilities.

AMERICAN COLLEGE OF SURGEONS

One of six sectional meetings of the American College of Surgeons to be held the first few months of 1948 is being arranged for Oklahoma City, January 30-31, the college has announced. Conferences for hospital personnel as well as sessions for the medical profession will be held, and medical motion pictures will be shown. In additional to a symposium on cancer, the scientific sessions will include discussions of fractures of the extremities; the importance of blood and fluids and adequate nutrition in surgery; intestinal obstruction; management of wounds, surgical incisions, and fresh traumatic wounds; panel operations on elderly patients with special reference to the reduction of the surgical risk; and pediatric, urologic, plastic, and vascular surgery. Headquarters for the Oklahoma City meeting will be the Oklahoma Biltmore Hotel.

LIFE EXPECTANCY OF WORLD WAR II VETERANS

Computations by the Veterans Administration indicate that its peak of medical care for veterans of World War II will be reached in 1975, when approximately 12,700,000 such veterans, averaging 57 years of age, will be expected to be living. The projection begins July 25, 1947, with the potential World War II veteran population of 16,051,000 at an average age of 28.6 years, and ends with the year 2030, when less than a thousand veterans averaging 104 years of age, will probably be alive. Almost as many World War II veterans will be alive at the turn of the twenty-first century as there are living veterans of World War I today.

VAN METER PRIZE AWARD

The American Association for the Study of Goiter is again offering the Van Meter Prize Award of $300 and two honorable mentions for the best essays concerning original work on problems related to the thyroid gland. The award will be made at the annual meeting of the association in Toronto, Canada, May 6-8, 1948, providing essays of sufficient merit are presented.

The competing essays may cover either clinical or research investigations; should not exceed 3,000 words in length; must be presented in English; and a typewritten double spaced copy sent to the corresponding secretary, Dr. T. C. Davison, 207 Doctors Building, Atlanta 3, Ga., not later than February 1, 1948.

MEDICAL SERVICE AND RURAL HEALTH CONFERENCES

The Committee on Rural Medical Service of the American Medical Association will sponsor the third annual National Conference on Rural Health at the Palmer House, Chicago, on February 6 and 7. Child health will be emphasized, with public health, school health programs, and other medical service in rural areas being considered.

On February 8 at the Palmer House, a National Conference on Medical Service will be held. The practice of medicine by hospitals, health departments, and medical schools; public relations in the doctor's office; nursing problems; general practice; and specialty boards will be discussed.

Outstanding speakers have been invited to participate in the conferences, and general practitioners and specialists are both promised material of interest.

OBSTETRICS AND GYNECOLOGY EXAMINATIONS

The American Board of Obstetrics and Gynecology has announced that its next written examination and review of case histories (Part I) for all candidates will be held in various cities of the United States and Canada on February 6. Candidates who successfully complete the Part I examinations will be eligible to take the Part II examination May 16-22 in Washington, D. C. Application blanks may be secured from Dr. Paul Titus, Secretary, 1015 Highland Building, Pittsburgh, Pa.

DIAGNOSTIC SERVICE FOR Q FEVER

A free diagnostic service for physicians in Texas who suspect the presence of Q fever is offered by the Virus Laboratory of Southwestern Medical College, Dallas. Studies in progress at the Laboratory indicate that Q fever, a rickettsial disease formerly considered rare in the United States, may actually occur frequently in Texas.

The clinical picture of Q fever is that of a febrile illness lasting from a few days to two weeks, sometimes with clinical signs and roentgen evidence of "virus" pneumonia. Ordinarily splenomegaly and rash are not present, and the white blood cell count is usually normal. The diagnosis can be made by a complement-fixation test on the blood from suspected cases.

To take advantage of the blood testing service at Southwestern, the physician should submit two sam-

ples of clotted blood (10 cc. each), one obtained during the acute stage of illness and the other three weeks later. The blood specimens should be accompanied by a brief abstract of the case history.

STATE MEDICAL BOARD EXAMINATIONS

Examinations will be held by the State Board of Medical Examiners on February 19, 20, and 21, in the House of Representatives chamber of the Capitol, Austin, according to announcement from the office of the secretary of the board.

NEW ORLEANS GRADUATE MEDICAL ASSEMBLY

The eleventh annual meeting of the New Orleans Graduate Medical Assembly has been announced for February 23-26 at the Municipal Auditorium, New Orleans. Lectures, clinics, symposiums, clinicopathologic conferences, round-table luncheons, and technical exhibits will be available to registrants for a fee of $15.

Guest speakers will include Dr. Louis A. Brunsting, Rochester, Minn., dermatology; Henry L. Bockus, Philadelphia, gastro-enterology; Norman F. Miller, Ann Arbor, Mich., gynecology; Arthur Grollman, Dallas, medicine; Loyal Davis, Chicago, neuropsychiatry; Willard R. Cooke, Galveston, obstetrics; R. Townley Paton, New York, ophthalmology; Walter P. Blount, Milwaukee, orthopedic surgery; W. Wallace Morrison, New York, otolaryngology; E. T. Bell, Minneapolis, pathology; Arild E. Hansen, Galveston, pediatrics; Fred J. Hodges, Ann Arbor, Mich., radiology; Claude S. Beck, Cleveland, surgery; George T. Pack, New York, surgery; and Roger W. Barnes, Los Angeles, urology.

A special exhibit, "Medicine at Operation Crossroads," to be shown by the Navy, will display material from the Bikini atomic bomb expedition.

The Assembly is sponsoring a visit to Latin America following the February conference. An airplane tour to begin February 28 and end March 12 will include Merida, Yucatan, and Guatemala City, Guatemala, in the itinerary. In addition to sightseeing, the tour will include a medical program at Guatemala City.

Additional information about the Assembly program in New Orleans or the Latin American tour may be secured from the Secretary of the Assembly, Room 105, 1430 Tulane Avenue, New Orleans 13.

UNIVERSITY OF TEXAS COURSES

A basic science course for general practitioners and physicians desiring refresher work in the basic sciences will be held at the University of Texas School of Medicine, Galveston, the week of February 23-28 under the direction of Dr. Donald Duncan, professor of anatomy. The course will cover recent advances in the preclinical sciences, and there will be special discussions of the clinical uses of radioactive isotopes.

Special speakers will include Drs. John Lawrence, professor of medicine, University of California Medical Center, San Francisco; Stuart Mudd, professor of bacteriology, University of Pennsylvania Medical School, Philadelphia; Carl Moore, professor of medicine, Washington University Medical School, St. Louis; George W. McCoy, professor emeritus of preventive medicine, Louisiana State University Medical School, New Orleans; Henry Winans, clinical professor of medicine, Southwestern Medical School, Dallas; M. S. Levy, Houston; and W. N. Powell, Temple.

As previuosly announced, the Postgraduate Division of the University of Texas will also sponsor a course in physical medicine and rehabilitation March 1-5, with outstanding authorities in that field as guest speakers. The course will be directed by Dr. W. A. Selle, professor of physiology and director of the Laboratory of Medical Physics.

Additional information is available from the directors of the courses or from Dr. T. G. Blocker, director of the Postgraduate Division of the University.

LIBRARY NOTES

PACKAGE SERVICE

The package library consists of collections of reprints and other periodical material on various subjects, prepared for lending to members of the Association. Requests for packages should be addressed "Library, State Medical Association of Texas, 1404 W. El Paso Street, Fort Worth 3, Texas." Twenty-five cents in stamps should be enclosed with the request to cover postage and part of the expense of collecting the material. Packages are allowed to remain in the hands of the borrower for 14 days.

ACCESSIONS

The following additions were made to the Library in December:

Reprints received, 600.

Journals received, 197.

Springfield, Ill., Charles C. Thomas—Scobee: The Oculorotary Muscles.

St. Louis, C. V. Mosby—Bierman: Physical Medicine in General Practice.

New York, Reynal & Hitchcock—Malmberg: 140 Million Patients.

New York, Columbia University Press—Lawton: Aging Successfully.

Boston, Meador Publishing Company—Kahn, Kirsten, and March: Practical Child Guidance and Mental Hygiene.

New York, Henry Schuman—Rosen and Caspari-Rosen: 400 Years of a Doctor's Life.

New York, G. P. Putnam's Sons—Gill and Culbertson: Laboratory Manual of Microbiology for Nurses.

Collected Reprints of the Grantees of The National Foundation for Infantile Paralysis, Volume VII, 1946.

Transactions of the American Neurological Society, 1946.

SUMMARY OF SERVICE

Local users, 44.	Borrowers by mail, 26.
Items consulted, 257.	Packages mailed, 30.
Items taken out, 303.	Items mailed, 304.

Total number of articles consulted and loaned, 864.

MOTION PICTURE FILM LIBRARY

Motion picture films on medical subjects, 16 mm., both silent and sound, some in color, and suitable for either medical or lay audiences, are available for loan to county medical societies, hospital staffs, or individual physicians, on request. Borrowers will be required to pay only the cost of shipment of the films, by express, with insurance, and for any damage to films while in the hands of the borrower.

Requests for films should be addressed to "Motion Picture Film Library, State Medical Association of Texas, 1404 West El Paso Street, Fort Worth 3, Texas." A list of available films, with descriptions, will be furnished on request.

The following motion picture films were loaned by the Film Library of the State Medical Association of Texas during December:

Adolescence, Introduction to (Available through the courtesy of Mead Johnson & Company, Evansville, Ind.)—Medical Journal Club, Corpus Christi.

Anemias (Available through the courtesy of Lederle Laboratories, Inc., New York)—Medical & Surgical Clinic, Fort Worth.

Anemias, Folvite in the Treatment (Available through the courtesy of Lederle Laboratories, Inc., New York)—Dr. W. B. Swift, Fort Worth.

Anesthesia, Regional (Available through the courtesy of Winthrop Chemical Company, New York)—Dr. W. T. Inabett, Decatur.

Animated Hematology (Available through the courtesy of Armour Laboratories, Chicago)—Scott & White Interns and Residents, Temple; Ragland Clinic-Hospital, Gilmer.

Another to Conquer (Available through the courtesy of Texas Tuberculosis Association, Austin)—Lorenzo Grade School, Lorenzo.

Appendicitis in Childhood (Available through the courtesy of Mead Johnson & Company, Evansville, Ind.) — Wharton - Jackson - Matagorda - Fort Bend Counties Medical Society, Wharton.

As Others See Us (Available through the courtesy of the American Hospital Association, Chicago)—Hotel Dieu Hospital, Beaumont; Rusk State Hospital, Rusk.

Back to Normal (Available through the courtesy of British Information Services, Houston)—Dr. W. T. Inabett, Decatur.

Behind the Shadows (Available through the courtesy of Texas Tuberculosis Association, Austin)—Dr. J. E. Miller, Dallas; Lorenzo Grade School, Lorenzo.

Bleeding Tendency (Available through the courtesy of Mead Johnson & Company, Evansville, Ind.)—Dr. J. E. Miller, Dallas.

Blood Transfusion (Available through the courtesy of British Information Services, Houston)—Hotel Dieu Hospital, Beaumont.

Blood Transfusion, Technique (Available through the courtesy of Mead Johnson & Company, Evansville, Ind.)—Dr. J. E. Miller, Dallas.

Bronchial Asthma (Available through the courtesy of E. Fougera & Company, Inc., New York)—Nueces County Medical Society; Medical Journal Club, Corpus Christi.

Caesarean Section (Available through the courtesy of Mead Johnson & Company, Evansville, Ind.)—Dr. William R. Berk, Dallas.

Chest Diseases, Surgery (Available through the courtesy of British Information Services, Houston)—Collin County Medical Society, McKinney.

Cholecystectomy (Available through the courtesy of Mead Johnson & Company, Evansville, Ind.)—Dr. M. R. Lawler, Mercedes.

Cloud in the Sky (Available through the courtesy of Texas Tuberculosis Association, Austin)—Junior and Senior High Schools, Harlandale.

D. D. T., Story of (Available through the courtesy of British Information Services, Houston)—Dr. M. R. Lawler, Mercedes; Rusk State Hospital, Rusk.

Empyema, Treatment of (Available through the courtesy of Mead Johnson & Company, Evansville, Ind.)—Scott & White Hospital, Temple.

Eyes for Tomorrow (Available through the courtesy of the Hurst Eye, Ear, Nose and Throat Hospital-Clinic, Longview)—Lorenzo Grade School, Lorenzo.

Eyes, Your Children's (Available through the courtesy of British Information Services, Houston)—Journal Club, Corpus Christi.

Gastrectomy, Safer (Available through the courtesy of Billy Burke Productions, Hollywood)—Dr. William R. Berk, Dallas; Journal Club, Corpus Christi; and Orange County Medical Society, Orange.

Golden Glory (Available through the courtesy of Standard Brands, Inc., Dallas)—Junior and Senior High Schools, Harlandale Public Schools, San Antonio.

Human Fertility (Available through the courtesy of Ortho Products, Inc., Linden, N. J.)—Collin County Medical Society, McKinney.

Injuries, Athletic Type (Available through the courtesy of Becton Dickinson & Company, Rutherford, N. J.)—Journal Club, Corpus Christi.

Let There Be Light (Available through the courtesy of the War Department)—Nueces County Medical Society, Corpus Christi.

Magic Bullets (Available through the courtesy of U. S. Public Health Service, Washington)—Harris College of Nursing, Fort Worth.

Modest Miracle (Available through the courtesy of Standard Brands, Inc., Dallas)—Lorenzo Grade School, Lorenzo.

Nasal Sinusitis (Available through the courtesy of E. Fougera & Company, Inc., New York)—Nueces County Medical Society and Journal Club, Corpus Christi.

Nutrition in Wound Healing (Available through the courtesy of California Fruit Growers' Exchange, Los Angeles)—Dr. C. E. Fuste, Alvin; Medical and Surgical Clinic, Fort Worth.

Oxygen, The Administration by Oro-Pharyngeal Catheter (Available through the courtesy of Mead Johnson & Company, Evansville, Ind.)—School of Nursing, Scott & White Hospital, Temple.

Oxygen Therapy in Heart Disease (Available through the courtesy of Linde Air Products, New York)—Collin County Medical Society, McKinney.

Parkinsonism (Available through the courtesy of Lederle Laboratories, Inc., New York)—Rusk State Hospital, Rusk.

Roentgen Pelvimetry (Available through the courtesy of Mead Johnson & Company, Evansville, Ind.)—Dr. M. R. Lawler, Mercedes.

Splenectomy (Available through the courtesy of Davis and Geck, New York)—Dr. William R. Berk, Dallas.

Tuberculosis, Diagnostic Procedure (Available through the courtesy of Texas Tuberculosis Association, Austin)—Dr. W. T. Inabett, Decatur; Journal Club, Corpus Christi.

Thoracic Surgery (Available through the courtesy of the War Department, Washington)—Scott & White Hospital, Temple.

Trichomonas Vaginalis (Available through the courtesy of Dr. Karl J. Karnaky, Houston)—Rusk State Hospital, Rusk; Hutchinson-Carson County Medical Society, Borger.

Urinary Antisepsis (Available through the courtesy of Mead Johnson & Company, Evansville, Ind.)—Nan-Travis Memorial Hospital, Jacksonville.

Varicose Veins and Their Complications (Available through the courtesy of Becton, Dickinson & Company, Rutherford, N. J.)—Hutchinson-Carson County Medical Society, Borger; Dr. W. T. Inabett, Decatur.

When Bobby Goes to School (Available through the courtesy of Mead Johnson & Company, Evansville, Ind.)—Junior and Senior High Schools and P. T. A., Harlandale Public School, San Antonio.

LIBRARY NEEDS

The journals listed are needed by the Library of the State Medical Association to complete volumes for binding. Any of these numbers will be acceptable either as a gift or for purchase. It is preferable that the Library, 1404 West El Paso Street, Fort Worth 3, be notified regarding items available, and the prices of such items, if any, before shipment is made.

Journals needed by the Library of the State Medical Association are as follows:

Texas State Journal of Medicine, Vol. 43, No. 6 (Oct.) 1947.

American Journal of Obstetrics and Gynecology, Vol. 34, No. 4 (Oct.) 1937.

BRITISH JOURNALS AVAILABLE

Periodical publications of the British Medical Association may now be obtained through Grune & Stratton, Medical Publishers, 381 Fourth Avenue, New York 16, who have been appointed sole agents

in the United States for these publications. Among the journals are the following: *British Medical Journal, Abstracts of World Medicine, Abstracts of World Surgery, Obstetrics and Gynecology, Annals of the Rheumatic Diseases, Archives of Disease in Childhood, British Heart Journal, British Journal of Industrial Medicine, British Journal of Pharmacology and Chemotherapy, British Journal of Social Medicine, British Journal of Venereal Diseases, Journal of Clinical Pathology, Journal of Neurology, Neurosurgery, and Psychiatry,* and *Thorax.*

BOOK REVIEWS

[1]**Concise Anatomy.** By Linden F. Edwards, Ph. D., Professor of Anatomy, Ohio State University, Columbus, Ohio. Cloth, 548 pages, with 324 illustrations. Price, $7. Philadelphia and Toronto, The Blakiston Company, 1947.

This book adequately fulfills the purpose for which it was written. In the introduction, the author has some excellent features. In a brief discussion of physical and constitutional types, he brings out the fact that most people can be placed in one of several types, the classification being based upon temperament and physical build. He also gives a brief comparison of the principal structural features of the body between man and anthropoid apes. Another noteworthy feature in the introduction is the listing of certain maladjustments of the human body to the erect posture.

The arrangement of the material in the book, in which the author first takes up a consideration of the general principles of anatomy and then follows with a description of the various regions of the body, is good. However, though he intimates that his approach is from a regional point of view, it is actually systemic, for he describes the various systems in each region separately, and in many instances illustrates them in like manner. In the illustrations, much could have been gained by using an assortment of colors for differentiating the various structures of a given region.

The section devoted to general mycology is excellent, though the author has probably gone into too much detail. A few more illustrations would have been helpful.

In the section on general neurology an attempt is made to include too much in a small space with the result that structures are mentioned without adequate description and illustration, thus confusing the reader.

The subjects of splanchnology and the endocrine system are adequately covered for the readers for whom the book was intended.

[2]**Radical Surgery in Advanced Abdominal Cancer.** By Alexander Brunschwig, M. D., Professor of Surgery, University of Chicago. Cloth, 324 pages. Price, $7.50. Chicago, The University of Chicago Press, 1947.

This is one of the most interesting books which has been published in years. The author has boldly challenged local extension as a limitation of surgery. He believes that any neoplasm which has not developed distant metastasis is resectable, provided enough tissue can be spared to maintain physiologic function.

The book is a presentation of 100 cases of extensive abdominal neoplasm which, by ordinary criteria, would be considered inoperable by the average prudent surgeon. The 100 cases are divided into the various regions of the abdominal cavity. The author first discusses the proper evaluation of the patient and the preoperative preparation. He believes that the blood chemistry is important and should be brought to as near normal as possible before surgery. A thorough preoperative evaluation of the extension of the disease is made. Postoperative care is also discussed. The cases are taken up in a methodical order, beginning in the upper abdomen. There is a short history of the patient, and then a step-by-step operative procedure. The postoperative convalescence and eventual findings at postmortem, if such occurred, are shown by either drawings or photographs. All of the cases are well illustrated so that the type of operation performed, the amount of tissue removed, and the type of anastomosis done are adequately portrayed. There is no superfluous discussion; only the barest minimal facts are presented. Attention is drawn to any mistakes made. The difficulties encountered and their management are discussed. Practically every organ in the abdominal cavity has been involved in some type of resection.

In the summary of the type of work done, the author is fair in figuring his operative mortality as 34 per cent. He accepts as an operative mortality all patients who died subsequent to surgery in the hospital. Of the 66 who lived, 17 had no palliation from surgery; 30 had palliation or relief of their symptoms until death ensued. The remaining 19 had a prolonged survival. Of these 19, 6 had an average survival rate of thirty-three months, then died with recurrent carcinoma. Thirteen are living and well with an average survival of forty months to date. The longest survival is ten years and one month, with another nine years and one month. There are 2 who are living well over the five year cure stage and an additional 5 who have almost reached the five year stage.

It apparently is the author's belief that there is all to gain and nothing to lose in making a direct, heroic attack upon this type of lesion. It makes a physician hesitate after reading this book to consider a neoplasm hopelessly inoperable when he explores a patient and finds extensive local infiltration without evidence of distant metastases. Removing stomach, spleen, colon, pancreas, and part of the small bowel with survival is certainly food for thought.

It would be well worth while for all general surgeons to study this book and give further consideration to what is normally considered hopelessly inoperable lesions which do not have distant metastases at the time of the operation.

[3]**Allergy in Theory and Practice.** By Robert A. Cooke, M. D., Sc. D., F. A. C. P., Attending Physician and Director of the Department of Allergy, Roosevelt Hospital, New York City. Cloth, 572 pages. Price, $8. Philadelphia and London, W. B. Saunders Company, 1947.

This authoritative book on allergy by Dr. Cooke and associates has been eagerly awaited by those interested in this branch of medicine. I believe there will be relatively few, if any, disappointments in regard to its contents. The field of allergy is admirably and practically covered without exhaustive consideration being given to all the theories and experiences of others. The book is well organized into nine sections, with the "Fundamental Aspects of Allergy" being carefully evaluated. Of special note also are the sections on "Allergy in Relation to Other Specialties" and on "Technics." The illustrations are excellent and the bibliography adequate.

Because of the completeness of the material in this book and because Dr. Cooke and collaborators are all authorities in their various fields, "Allergy in Theory and Practice" will be of special value to the medical student and practitioner and should be in the personal library of every allergist and internist.

[1]Reviewed by J. C. Haley, M. D., Department of Anatomy, Baylor University College of Medicine, Houston.
[2]Reviewed by W. Burgess Sealy, M. D., Fort Worth.
[3]Reviewed by William L. Marr, M. D., Galveston.

[4]**Surgical Pathology.** By William Boyd, M. D., Dipl. Psychiat., M. R. C. P. Edin., F. R. C. P. Lond., LL. D. Sask., M. D. Oslo, F. R. S. C., Professor of Pathology, University of Toronto. Cloth, 858 pages, with 530 illustrations including 22 color figures. Sixth edition. Price, $10. Philadelphia, W. B. Saunders Company, 1947.

During the past twenty years, there has been developed among all surgeons a growing interest in the pathology of surgical conditions. This is the basis for advancement in diagnosis and treatment, and the now universal appreciation of its value is a healthy sign. Boyd's "Surgical Pathology," now in its sixth edition, has attained a high standard of excellence; it is worthy of the attention of surgeons, young or old, who wish to improve their knowledge of this absorbing subject. Good arrangement and clear exposition have long distinguished it. Balance is well maintained between the more usual and the rare conditions. Balance is likewise maintained between the discussions of inflammatory and similar processes and of neoplasms. Despite the almost overwhelming absorption of the learned of the day in the subject of cancer, tumors are discussed adequately but they are not allowed to displace material of equal interest and perhaps of more general importance. New material is well chosen and adequately presented. The author presents his facts with vision and with judgment. Though he does not hesitate to express his opinions, there is a factual quality that eliminates prejudice.

This is a beautifully produced book. Its format is pleasing; its illustrations well chosen, plentiful but not too large nor numerous; its reference lists are easily available and carefully selected. To the medical student or the clinician alike, it is gratifying to find that reliable information can be attained with a reasonable amount of enjoyment. Of this they can be assured: the book is scholarly, eminently readable, and it is packed with information.

[4]Reviewed by Violet H. Keiller, M. D., Houston.

NEWS

Contributions to this department will be appreciated. News should be of general medical interest, such as public health activities, new hospitals, personal items of more than local value, etc. News for a particular number of the JOURNAL should be in the hands of the Editor not later than the fifteenth of the preceding month.

Hospitals.—The Truett Memorial Fund, a $1,000,000 fund to which Dallas citizens were invited to contribute to help pay for a $4,000,000 expansion of Baylor Hospital, was over-subscribed by about $50,000, according to latest reports. Raised in memory of Dr. George W. Truett, late Baptist leader of Dallas, the fund will be added to $1,000,000 raised in 1943, $1,000,000 contributed by the Baptist General Convention, and $1,000,000 to be borrowed for repayment over twenty years. The sum will be used to build a seven-story, 800-bed hospital on the present Baylor Hospital grounds in Dallas. Construction will start early in 1948, according to the Dallas *News*.

St. Joseph's Infirmary, Houston, has already broken ground for a $1,000,000 pediatrics unit to be added to the maternity wing, reports the Houston *Chronicle*. The new four-story unit will house facilities for forty-two beds, operating rooms, x-ray equipment, solarium and play room, offices, and waiting rooms. The pediatrics unit is first in a program of expansion planned for the hospital.

The Amarillo Preventorium for adult tuberculosis patients has recently been completed, informs the Amarillo *News-Globe*. The $75,000 hospital building contains eighteen individual rooms equipped with radiant heat, and x-ray and sterilization rooms, and adjoins the old frame building, which will be remodeled to house kitchen and eating facilities and nurses' quarters. The new building was made possible through a contribution of $25,000 from Mr. and Mrs. Rip Underwood, Amarillo, who did much to establish the adult tuberculosis clinic in 1941. Additional funds will be made available by the Potter County Tuberculosis Association from the sale of Christmas seals and from contributions made specifically for the building. New sterilization equipment is being made possible through contributions from persons who send money to the clinic instead of sending flowers to funerals.

The Texas Diabetic Trust Fund has been launched by a group of Dallas men who hope to help finance research, provide lectures for diabetic patients, and open camps for diabetic children, reports the Park Cities *News*. Ernest H. Parks, chairman of the trust fund's board of trustees, has announced the appointment of Drs. David W. Carter, Jr., Arthur Grollman, R. B. McBride, Walter Grady Reddick, Edwin L. Rippy, Paul J. Thomas, and John G. Young as a medical advisory committee to recommend uses for the fund.

The M. D. Anderson Hospital for Cancer Research has received a grant of $26,700 through the National Advisory Cancer Council of the National Cancer Institute for a tumor registry and diagnostic service for the state of Texas. The grant will come from United States Public Health Service funds. Grants to a total of sixty-four college, research laboratories, and public health institutions throughout the country totaled $1,500,000, according to the U. S. Public Health Service.

Dr. Benjamin B. Wells, former dean of the University of Arkansas Medical School, has been appointed clinical pathologist of the M. D. Anderson Hospital, informs the Houston *Post*.

Southwestern Medical College, Dallas, has recently received $100,000 for cancer research, $50,000 coming from the Damon Runyon Cancer Research Fund and a like amount from the Variety Club Foundation of Texas. Establishment of a biophysics department and studies of cancer in women will be provided by allocation of $18,900 to Southwestern Medical College by the Texas Division of the American Cancer Society.

Continued support of its research program on infantile paralysis has been assured Southwestern Medical College by the National Foundation for Infantile Paralysis, which recently granted $5,000 for that purpose.

The United States Standard Products Company, Woodworth, Wis., recently donated $2,000 for expansion of the library of Southwestern Medical College.

The University of Texas Medical Branch, Galveston, has received two grants totaling $5,350 from the Natonal Foundation for Infantile Paralysis. One grant of $4,350 will be used in the development of a practical blood test for the diagnosis of poliomyelitis, which Dr. Morris Pollard, director of the Virus Laboratory, is attempting. A $1,000 grant was made available to Dr. Donald Duncan, professor of anatomy, for alimentary tract research in connection with poliomyelitis, reports the Galveston *Tribune*.

John Sealy Hospital is offering a nine month course for hospital technicians in an attempt to help alleviate the shortage of nurses, informs the Galveston *Tribune*. The technicians are being trained in the care of convalescent, chronic, and acutely ill patients, and are working in the wards while attending classes in order to correlate theory and practice.

Dr. Edgar J. Poth, professor of surgery, has been invited to attend a special course in atomic radiation treatment in Washington, January 12-16, states the Galveston *News*. The course is offered by the Army for selected civilian doctors to instruct them in procedures to be followed in the event of atomic raids.

Dr. Charles E. Hall, formerly of McGill University, Montreal, and Johns Hopkins Hospital, Baltimore, has been appointed assistant professor of physiology at the University of Texas Medical Branch. He will cooperate in the development of an endocrine clinic in the John Sealy Hospital.

Dr. John A. Sinclair, professor of anatomy, has been elected president of the Texas Academy of Science.

Dr. Granville A. Bennett, professor of pathology, University of Illinois Medical Center, Chicago; Dr. Clifford A. Sweet, pediatrician of Oakland, Calif.; Dr. Harold Himwick, director of the Physiology Division of the Army Chemical Center, Maryland; and Dr. Fe del Mundo, professor of pediatrics at the University of Santo Tomas and director of the Children's Hospital, Manila, have been recent visitors and lecturers on the campus of the University of Texas Medical Branch.

PERSONALS

Dr. Karl John Karnaky, Houston, was awarded third place by the Southern Medical Association Committee on Scientific Awards for his exhibit on lesions of labia, vagina, and cervix with special reference to detection of cancer by cervical smear, according to the Daily Bulletin of the Association, published during the annual session in Baltimore in November.

Dr. Minnie L. Maffett, Dallas, was recently decorated with the Rosette of the Order of Brilliant Star by Wellington Koo, Chinese ambassador to the United States, in recognition of her services to China as a director of the American Bureau for Medical Aid to China, reports the Dallas *Times-Herald*.

Dr. Russell J. Blattner, professor of pediatrics at Baylor University College of Medicine, Houston, has been appointed editor of the medical literature section of the *Journal of Pediatrics*, informs the Houston *Post*.

Dr. Pat Ireland Nixon, San Antonio, has been elected president of the Philosophical Society of Texas.

Dr. B. F. Hambleton, professor of physiology and pharmacology at Baylor University School of Medicine, died December 9 of coronary occlusion. The 75 year old physician had been a member of the Baylor faculty since 1920, and was a member of the Dallas County Medical Society, the State Medical Association, and the American Medical Association from 1922 through 1926.

MARRIAGES

Dr. John M. Ellis, Mt. Pleasant, married Miss Lucille Haenni, St. Louis, on November 22. Dr. Ellis is currently serving a residency at the Missouri Pacific Hospital, St. Louis.

BIRTHS

To *Dr. and Mrs. Cooper Conner*, Fort Worth, a daughter, Linda, November 30.

To *Dr. and Mrs. L. J. Hawker*, Fort Worth, a son, Phillip John, December 3.

To *Dr. and Mrs. John T. Tucker*, Jr., Fort Worth, a daughter, December 9.

To *Dr. and Mrs. M. H. Bierman*, Orange, a daughter, Mary Kathryn, September 8.

To *Dr. and Mrs. J. R. Werner*, Amarillo, twins, Jana Marie and Jan Reinhart, October 15.

To *Dr. and Mrs. Thomas D. Cronin*, Houston, a daughter, Frances Ann, in October.

SOCIETY NEWS

Angelina County Society

December 8, 1947

New officers were elected by the Angelina County Medical Society at its December 8 meeting and will take office at its January meeting. Joe Burch is the new president; J. C. Clement, vice-president; Gail Medford, secretary-treasurer; and Robert Taylor, censor. All are of Lufkin.

Bee-Live Oak-McMullen Counties Society

December 5, 1947

(Reported by D. W. Davis, Secretary)

Bee-Live Oak-McMullen Counties Medical Society met December 5 at Beeville with eight members and five guests present. With C. D. Gipson, Three Rivers, president, presiding, new officers were elected as follows: G. W. Sansom, George West, president; C. M. Poff, Tuleta, vice-president; D. W. Davis, Three Rivers, secretary-treasurer; C. M. Poff, Tuleta, delegate; G. W. Sansom, George West, alternate.

Nathan Mann, Beeville, was elected to membership.

Bell County Society

December 4, 1947

Clinical Consideration of Common Anesthetic Problems—Lloyd H. Mousel, Clinical Professor of Anesthesiology, George Washington University School of Medicine, St. Louis.

Bell County Medical Society, meeting December 4 at Temple, heard Lloyd H. Mousel, member of the George Washington University staff, St. Louis, and consultant in anesthesiology to the secretary of war and regional consultant for the Veterans Administration.

Brazoria County Society

December 4, 1947

(Reported by A. O. McCary, Secretary)

Brazoria County Tuberculosis Association—Ralph Gray, Lake Jackson.

Mosquito Control in Brazoria County—Mr. Lee Norris, Lake Jackson.

Brazoria County Medical Society members and their wives and dentists of the county and their wives had dinner in a Freeport hotel on December 4 with M. E. Thompson as host. Following the dinner the auxiliary met separately and the medical society had the program outlined above. A nominating committee consisting of W. C. Holt, Angleton, chairman; S. B. Slaughter, Freeport; and R. C. Miller, Lake Jackson, was appointed by the president to report at the next meeting.

Cherokee County Society

November 25, 1947

Effects and Treatment of Infantile Paralysis—Catherine Armstrong, Jacksonville.

Members of the Cherokee County Medical Society and Auxiliary held a joint meeting at the Rusk State Hospital, Rusk, on November 25. Guest speaker at the dinner meeting was Catherine Armstrong, Jacksonville, recently returned from New York where she studied under specialists in infantile paralysis. A short business meeting was held.

Colorado-Fayette Counties Society

November 25, 1947

(Reported by C. I. Shult, Secretary)

Recent Advance in Treatment of Syphilis—C. H. McCuistion, Austin.

Colorado-Fayette Counties Medical Society heard a talk on syphilis by C. H. McCuistion, Austin, at its November 25 meeting in LaGrange. Preceding the program, which was under the direction of E. T. Williams, LaGrange, the society and members of the auxiliary had dinner at a LaGrange cafe.

Dallas County Society

December 11, 1947

(Reported by W. W. Fowler, Secretary)

Carbon Tetrachloride Poisoning from Fire Extinguisher; Case Report—Arvel Haley, Medical Resident, Baylor Hospital, Dallas.

Acute Cholecystitis Complicating Other Surgical Procedures; Case Report—Porter Bailes, Surgical Resident, Parkland Hospital, Dallas.

Rehabilitation of Chronic Neurological Cases (motion picture)—Ben L. Boynton, Chief, Physical Medicine, Rehabilitation Division, Veterans Administration, Dallas.

Eighty-one members attended the December 11 meeting of Dallas County Medical Society in Dallas, at which John G. Young, president, presided. The scientific program outlined above was presented, and a short discussion of the Dallas Health Museum and its financial drive to be held in February was presented by M. O. Rouse, Mr. R. L. Thomas, president of the museum, and Mr. Travis T. Wallace.

Election of 1948 officers resulted in the following: George A. Schenewerk, president-elect; John S. Bagwell, vice-president; W. W. Fowler, secretary-treasurer; Charles L. Martin, George A. Schenewerk, R. A. Trumbull, and Tate Miller, delegates; B. E. Park, Homer Donald, Elliott Mendenhall, and M. O. Rouse, alternates; and Malcolm K. McCullough, censor. Edward White will be installed as president.

Brief reports from the secretary-treasurer were presented, and nine new members were elected upon application.

DeWitt County Society

December 17, 1947

(Reported by Herman C. Eckhardt, Secretary)

Officers for DeWitt County Medical Society were elected December 17 as follows: R. H. Milner, Yoakum, president; J. E. Trot, Yoakum, vice-president; and H. C. Eckhardt, Yorktown, secretary-treasurer.

Ellis County Society

December 10, 1947

(Reported by B. C. Wallace, Jr., Secretary)

The retiring president of Ellis County Medical Society, E. F. Baker, Ennis, entertained the society with a turkey dinner at its final meeting of the year, December 10 at the Waxahachie Sanitarium. Election of officers was held, and R. M. Tenery, Waxahachie, will be president; H. Donnell, Waxahachie, vice-president; B. C. Wallace, Jr., Waxahachie, secretary-treasurer; Ed Estes, Waxahachie, censor; S. H. Watson, Waxahachie, delegate; and H. Donnell, Waxahachie, alternate.

El Paso County Society

October 7, 1947

(Reported by W. Compere Basom, Secretary)

Experiences in Treatment of Coronary Occlusion—Ralph H. Homan, El Paso.
Discussion—Ross W. Rissler, Frank C. Golding, L. C. Feener, L. O. Dutton, and Chester D. Awe, El Paso.

El Paso County Medical Society met October 7 in El Paso for the scientific program named above.

The society passed a motion by L. C. Feener, seconded by Ralph H. Homan, that a committee be appointed by the chair to investigate the feasibility of retaining a professional public relations director with a view to improving public relations, particularly with the press, and to consider the advisability of sponsoring a publication setting forth the activities of the society, its views on public health and legislation, for free distribution to the medical profession and the laity.

Following the suggestion by J. Richard Fuchlow that the City-County Hospital Unit be merged with the new Providence Memorial Hospital, Celso C. Stapp moved that the problem be referred to the executive committee for further consideration and action. The motion was seconded by Dr. Feener and passed.

John E. Morrison announced that the Red Cross Blood Bank is for emergency cases only, except when rare blood types are required. The society voted that this limitation be publicized.

Benjamin Sher, Kenneth Curita, Edwin Edahl, and Carl Nowlin were unanimously elected to membership upon application.

October 28, 1947

(Reported by W. Compere Basom, Secretary)

Modern Anesthesia—F. O. Barrett, El Paso.
Discussion—J. Leighton Green, Russell Deter, Robert Homan, E. D. Price, B. F. Stevens, Benjamin Sher, and C. C. Boehler, El Paso.

El Paso County Medical Society met October 28 in El Paso for the scientific program named above. In accordance with action taken at the previous meeting a committee consisting of Ralph H. Homan, L. C. Feener, and Maurice Spearman was appointed to ascertain the feasibility of retaining a professional public relations director. A report was given by C. C. Boehler for the committee to investigate the nurse shortage.

November 25, 1947

(Reported by W. Compere Basom, Secretary)

Treatment of Functional Bleeding—C. C. Boehler, El Paso.
Discussion—F. A. Snidow, El Paso.

Following the presentation of the paper mentioned, the El Paso County Medical Society, meeting November 25 in El Paso, heard a report by Ralph Homan concerning the possible employment of a publicity director. Dr. Homan said the committee was in agreement that retaining such a director would be highly important, though expensive. When details of a plan have been worked out, the committee will offer it to the society for approval.

C. P. Brown, El Paso; H. P. Deady, El Paso; and M. L. Alexander, Canutillo, were unanimously elected to honorary membership.

December 9, 1947

(Reported by W. Compere Basom, Secretary)

A business meeting was held by El Paso County Medical Society in El Paso on December 9. Upon motion by B. F. Stevens, seconded by Russell L. Deter, the society unanimously voted to enter into a one year contract with Reid and Mott public relations counselors and to assess members of the society $12 each to cover the expense of the contract. The public relations firm will obtain appropriate medical news and attempt to secure its publication locally and nationally and will publish a monthly bulletin suitable for wide distribution to be financed by advertising, according to a report by M. P. Spearman, representing the investigating committee.

New officers were elected as follows: Wickliffe R. Curtis, president; J. Leighton Green, president-elect; Delfin von Briesen, vice-president; Russell L. Deter, secretary-treasurer; Robert B. Homan, Jr. and Orville Egbert, delegates; M. P. Spearman and George Turner, alternates; Branch Craige, librarian; B. F. Stevens, E. W. Rheinheimer, and W. E. Vandevere, nominating committee; David M. Cameron, chairman of the economic committee; I. M. Epstein and Edmund P. Jones, milk committee; F. O. Barrett, censor; Louis W. Breck and Leslie M. Smith, board of Southwestern Medicine.

Upon motion by Paul Gallagher, the society unanimously voted to send a letter of sympathy to the family of Dr. Holman Taylor, Fort Worth, Secretary of the State Medical Association, who died December 4.

Gray-Wheeler Counties Society

December 16, 1947

(Reported by W. Purviance, Secretary)

The following officers were elected by Gray-Wheeler Counties Medical Society at Pampa, De-

cember 16: M. C. Overton, Jr., Pampa, president; H. C. Nicholson, Wheeler, first vice-president; K. W. Pieratt, Pampa, second vice-president; Edward S. Williams, Pampa, secretary-treasurer; Malcom R. Brown, Pampa; Julian M. Key, Pampa; and Glenn R. Walker, Wheeler, censors; Malcom R. Brown, delegate; C. E. Nicholson, Wheeler, alternate; Charles Ashby, R. M. Bellamy, and Paul C. Christian, all of Pampa, program committee.

Grayson County Society

December 9, 1947

Officers for 1948 were elected at a dinner meeting in Denison December 9 by the Grayson County Medical Society. They include William Freeman, Denison, president; Emmett Esson, Sherman, vice-president; Robert W. Duncan, Denison, secretary-treasurer; and Frank Sporer, Van Alstyne, censor. W. A. Lee, Denison, has another year to serve as delegate, and Arthur Gleckler, Sherman, another year as alternate.

Harris County Society

November 21, 1947

Medical Centers and Their Relation to Medical Education and the Community—Herman G. Weiskotten, Dean, Syracuse University School of Medicine, Syracuse, N. Y.

Aims of a Psychiatric Program at Baylor University College of Medicine—Warren T. Brown, Associate Dean and Professor of Psychiatry, Balor University, Houston.

Effect of Shock on the Heart As Shown in Cardiograms—S. A. Harris, Associate Professor of Physiology, Baylor University, Houston.

The auditorium of Baylor University College of Medicine was used for the first time when Harris County Medical Society and the Houston Surgical Society met jointly on November 21. The primary theme of the meeting was the Texas Medical Center, of which the new Baylor building is a part. In addition to a talk on medical centers in general by Herman G. Weiskotten, a visitor from Syracuse, N. Y., various aspects of the Texas Medical Center were discussed briefly by Mr. F. M. Law, chairman of the education committee of the Houston Chamber of Commerce; Col. W. B. Bates, chairman of the M. D. Anderson Foundation trustees; Mr. H. R. Cullen, benefactor of the Cullen Foundation; and E. W. Bertner, president of the Texas Medical Center. Scientific papers were given by two members of the Baylor University College of Medicine faculty.

December 10, 1947

Officers were elected and installed by Harris County Medical Society in Houston, December 10. H. L. Alexander was installed as president, and other officers were elected and installed as follows: Denton Kerr, president-elect; V. C. Baird, vice-president; Harry Burr, secretary; and J. R. Blundell, treasurer. John T. Moore made a short talk on early medical activities in Harris County.

Hays-Blanco Counties Society

December 10, 1947

(Reported by J. R. de Steiguer, Secretary)

Hays-Blanco Counties Medical Society, meeting December 10, elected the following officers for 1948: T. C. McCormick, Buda, president; E. T. Kealey, Johnson City, vice-president; J. R. de Steiguer, San Marcos, secretary-treasurer; M. D. Heatley, San Marcos, censor; York Lancaster, San Marcos, delegate; and M. D. Heatley, San Marcos, alternate.

Hidalgo-Starr Counties Society

(Reported by L. M. Southwick, Secretary)

New officers recently elected by Hidalgo-Starr Counties Medical Society include Lloyd M. Southwick, Edinburg, president; H. E. Whigham, McAllen, vice-president; Jack F. Lubben, Jr., McAllen, secretary-treasurer; and Dean Munal, San Juan, censor.

Jefferson County Society

December 8, 1947

(Reported by E. Mittendorf, Executive Secretary)

The annual banquet-business meeting of Jefferson County Medical Society was held at the Beaumont Country Club, December 8, with seventy-four in attendance. Chief business of the meeting was the election of officers. The following were chosen: Russell C. Willoughby, Groves, president; Norman Duren, Beaumont, vice-president; W. E. McRee, Jr., Port Arthur, secretary-treasurer; L. C. Heare, Port Arthur, and L. C. Powell, Beaumont, delegates; R. R. Orrill, Port Arthur, and J. C. Crager, Beaumont, alternates; and Seab J. Lewis, censor. It was voted to retain Mr. J. B. Morris, Beaumont, as attorney for 1948, and to retain Mr. E. Mittendorf, Beaumont, as executive secretary. Dues for 1948 will remain at $36.

The secretary's and the treasurer's annual reports were read.

A motion to contribute a subscription to *The Journal of the American Medical Association* to Lamar College library carried.

Kaufman County Society

December, 1947

General Practitioner—Tate Miller, President-Elect, State Medical Association, Dallas.

Kaufman County Medical Society met early in December at Terrell to hear a talk on the general practitioner by Tate Miller, Dallas, President-Elect of the State Medical Association, and to be entertained with magical tricks by Gordon Maddox, Dallas.

Officers elected for 1947 include Albert Pattillo, Terrell, president; William de Vlaming, Kaufman, vice-president; and E. I. Hall, Kaufman, secretary-treasurer.

Kimble-Mason-Menard-McCulloch Counties Society

December 3, 1947

(Reported by J. S. Anderson, Secretary)

Early Diagnosis of Breast Tumors and Their Treatment—J. M. Lawson, Fort Worth.

Diagnosis and Treatment of Headaches—W. S. Horn, Fort Worth.

Ten members and two guests were present for the December 3 meeting of Kimble-Mason-Menard-McCulloch Counties Medical Society in Brady. The two guests, J. M. Lawson and W. S. Horn, Fort Worth, presented the program.

The society elected officers for 1948 as follows: W. F. Benson, Brady, president; O. F. Bush, Menard, vice-president; J. G. Bodenhammer, Mason, secretary-treasurer; B. A. Hallum, Brady, delegate; and J. P. Anderson, Brady, alternate.

Limestone County Society

December 16, 1947

(Reported by Stanley Cox, Secretary)

Five members of Limestone County Medical Society met December 16 in Mexia, electing C. P. McKenzie, Mexia, president, and Stanley Cox, Groesbeck, secretary, for the coming year.

Lubbock-Crosby Counties Society

December 2, 1947

(Reported by O. R. Hand, Secretary)

The annual dinner meeting of Lubbock-Crosby Counties Medical Society was held December 2 at Lubbock with seventy-two members and wives present. The nominating committee's report was accepted and the following officers, all of Lubbock, were unanimously elected: R. C. Douglas, president: O. R. Hand, vice-president; Roy G. Loveless, secretary; Henrie E. Mast, censor; Allen T. Stewart, delegate, and Frank B. Malone, alternate.

Navarro County Society

December 1, 1947

(Reported by Paul H. Mitchell, Secretary)

Report on Tick Fever Cases—G. H. Sanders, Kerens.

Nine members of Navarro County Medical Society met in Corsicana on December 1. The paper named above was presented, and J. S. Chalmers and Harry Ezell, Jr., were elected to membership. Officers for 1948 were chosen as follows: T. O. Wills, Corsicana, president; Will Miller, Corsicana, vice-president; Paul H. Mitchell, Corsicana, secretary-treasurer; W. W. Carter, Leslie Kelton, Jr., and Phillip S. Mountjoy, all of Corsicana, censors; J. Wilson David, Corsicana, delegate; G. H. Sanders, Kerens, alternate; and Paul H. Mitchell, Corsicana, legislative committee.

Following a discussion introduced by Will Miller, Corsicana, it was decided to request that a mobile x-ray unit be brought to Corsicana.

Nolan-Fisher-Mitchell Counties Society

November 18, 1947

(Reported by S. F. Supowit, Secretary)

New officers were elected by Nolan-Fisher-Mitchell Counties Medical Society on November 18 at Sweetwater. They include R. O. Peters, Sweetwater, president; J. E. Peavy, Sweetwater, vice-president; S. F. Supowit, Sweetwater, secretary-treasurer; R. L. Price, Sweetwater, delegate; T. D. Young, Roscoe, alternate; S. A. Loeb, Sweetwater; C. U. Callan, Rotan; and C. A. Rosebrough, Sweetwater, censors.

The society decided to hold scientific programs monthly during the coming year.

Nueces County Society

December 9, 1947

(Reported by James Barnard, Secretary)

Officers elected December 9 in Corpus Christi by Nueces County Medical Society are as follows: Robert J. Sigler, president; Walter C. Brown, vice-president; James Barnard, secretary-treasurer; C. P. Yeager and Godfrey T. Moller, delegates; Leslie M. Garrett and John F. Pilcher, alternates; and Leslie M. Garrett, censor.

A resolution was passed calling for twelve instead of nine meetings a year.

Pecos-Jeff Davis-Presidio-Brewster Counties Society

December 14, 1947

(Reported by W. E. Lockhart, Secretary)

Common Errors in Diagnosis of Skin Diseases (slides)—Leslie Smith, El Paso.

Common Errors in Diagnosis of Eye Diseases (lithographs)—Maurice Spearman, El Paso.

Eleven members and fourteen guests of Pecos-Jeff Davis-Presidio-Brewster Counties Medical Society met in Alpine on December 14. Two El Paso physicians presented the scientific program. The president, J. W. Pate, Sanderson, and the secretary, W. E. Lockhart, Alpine, were reelected for the coming year. The society approved the sending of flowers to the funeral of Dr. Holman Taylor, Fort Worth, Secretary of the State Medical Association, and authorized voluntary contributions to defray their cost.

Potter County Society

December 10, 1947

(Reported by George M. Waddill, Jr., Secretary)

Election of officers was held by Potter County Medical Society at its meeting December 10 in Amarillo. Kenneth Flamm was named president; David Marcley, vice-president; George Waddill, secretary-treasurer; A. E. Winsett, delegate; T. P. Churchill, alternate; Peter Richard Garre, editor of the society bulletin; and W. R. Klingensmith, censor.

Randall-Deaf Smith-Parmer-Castro-Oldham Counties Society

December 10, 1947

(Reported by Robert P. Jarrett, Secretary)

Laryngotracheobronchitis in a Child Necessitating Tracheotomy; Case Report—E. D. Anderson, Friona.

Eleven members and five guests were present for the December 10 meeting of Randall-Deaf Smith-Parmer-Castro-Oldham Counties Medical Society at the home of Robert C. Stokes, Friona. A case report was presented by E. D. Anderson, Friona, and officers were elected as follows: O. H. Loyd, Vega, president; Lewis Barnett, Hereford, vice-president; and Millard Nobles, Hereford, secretary-treasurer. Refreshments were served by Mrs. Stokes and Mrs. Anderson.

Tarrant County Society

November 18, 1947

(Reported by W. P. Higgins, Jr., Secretary)

Dr. E. D. Capps: Biographical Sketch—L. H. Reeves, Fort Worth.

Public Health Department in Venereal Disease Control—D. A. Reekie, Fort Worth.
Discussion—Hub Isaacks, W. V. Bradshaw, Jr., J. F. Campbell, Stephen W. Wilson, and Harold M. Williams, Fort Worth.

Present Treatment of Syphilis—J. F. Campbell, Fort Worth.
Discussion—William E. Flood, Fort Worth.

Tarrant County Medical Society met November 18 in Fort Worth with sixty-seven members and one visitor present. The above mentioned program was presented.

Upon motion by Walter B. West, seconded by J. F. Campbell, the society directed the president to appoint a committee to collect and edit material for publicity regarding the medical profession in Tarrant County.

The applications for membership of J. A. McConnell, Azle, and J. T. Tucker, Jr., Fort Worth intern, were accepted.

Tom Green-Eight County Society

November 3, 1947

(Reported by H. M. Anderson, Secretary)

Tubal Insufflation with Use of Kymograph (lantern slides)—Eugene R. Chapman, San Antonio.
Discussion—R. L. Powers, H. K. Brask, and C. M. French, San Angelo.

Forty members and guests of Tom Green-Eight County Medical Society met November 3 at San Angelo to hear a paper by a guest from San Antonio, as mentioned above.

Upon motion by H. K. Brask, the society agreed that one physician should sign all physical examination blanks for National Guard applications. Dr. Brask was appointed to serve in that capacity.

December 1, 1947

Tom Green-Eight County Medical Society held its annual banquet in San Angelo on December 1 with sixty members of the organization and their guests in attendance. Officers elected include H. M. Anderson, president-elect; M. D. Knight, vice-president; C. A. Kunath, secretary; J. B. McKnight, Sanatorium, treasurer; and C. T. Womack, censor. L. K. Tester, who has been serving as president-elect, will be president during the coming year.

Williamson County Society

December 9, 1947

(Reported by Jay J. Johns, Secretary)

Convulsions in Children—Hugo Clint, Austin.

A dinner meeting of Williamson County Medical Society was held in Taylor on December 9 with a guest speaker from Austin presenting the paper named above. New officers were elected as follows: J. Frank Clark, Georgetown, president; Seth Ward Lehmberg, Taylor, vice-president; W. R. Swanson, Taylor, secretary; J. Frank Clark, Georgetown, delegate; Albert J. Rice, Georgetown, alternate; and D. B. Gregg, Round Rock, censor.

AUXILIARY NOTES

Officers of the Woman's Auxiliary to the State Medical Association of Texas: President, Mrs. Edward C. Ferguson, Beaumont; President-Elect, Mrs. S. M. Hill, Dallas; First Vice-President, Mrs. A. N. Boyd, Houston; Second Vice-President, Mrs. H. P. Ledford, Wichita Falls; Third Vice-President, Mrs. A. L. Delaney, Liberty; Fourth Vice-President, Mrs. W. Frank Armstrong, Fort Worth; Recording Secretary, Mrs. M. A. Ramsdell, San Antonio; Corresponding Secretary, Mrs. W. G. Wallace, Beaumont; Publicity Secretary, Mrs. J. F. Campbell, Fort Worth; Treasurer, Mrs. J. Guy Jones, Dallas; Parliamentarian, Mrs. Paul Brindley, Galveston.

AUXILIARY NEWS

Angelina County Auxiliary met for breakfast at the home of Mrs. T. A. Taylor, Lufkin, in October. Mrs. Ada Smith, executive secretary of the Lufkin County Tuberculosis Association, reported on activities related to tuberculosis and thanked members of the auxiliary for their support. Sixteen members were present.

A French dinner was given by Angelina County Auxiliary on November 28 in Lufkin to entertain husbands and guests of the members. Approximately sixty persons were present for the program, which featured a demonstration of a solovox by Mr. Emet Newton, Houston. Mrs. J. H. Wade, president, was in charge of arrangements.

A rummage sale for the benefit of projects of Angelina County Auxiliary was held by the auxiliary in December.—Mrs. T. A. Taylor, Corresponding Secretary.

Mrs. R. B. Forrest, Huntington, died in December. She is survived by her husband, Dr. Forrest.

Bexar County Auxiliary entertained husbands of the members at a Christmas dinner party in San Antonio on December 12. Greeting guests were members of the social committee: Mesdames Charles Tennison, chairman; Wilbur Robertson, Frank Steed, Willis Allin, Alfred Breuer, C. C. Cade, Royal Calder, Eugene Chapman, Fletcher Clark, W. J. Fetzer, Robert Franken, E. A. Maxwell, Richard Nitschke, Virgil Steele, Chester Shotts, G. G. Passmore, and Horace Sweet. Approximately one hundred guests were present.

Cass-Marion Counties Auxiliary met at the home of Mrs. W. S. Terry, Jefferson, November 12, with seven members present. Mrs. Steed, Hughes Springs, was elected secretary-treasurer to fill a vacancy created by the resignation of Mrs. J. H. Campbell, Linden, who resigned because she was moving out of the state. Mrs. C. E. Davis, Linden, was appointed health chairman.—Mrs. J. M. DeWare III, Publicity Secretary.

Cherokee County Auxiliary met jointly with the Medical Society at the Rusk State Hospital, Rusk, with Dr. and Mrs. James S. Scarborough as hosts for a Thanksgiving dinner November 25. Following a talk by Dr. Catherine Armstrong, Jacksonville, who recently completed a course of study in poliomyelitis in New York, the auxiliary held a brief business session with Mrs. Scarborough presiding in the absence of the president. Plans were made for a tea with a guest speaker to which all girls in the high school graduating classes would be invited in an effort to arouse interest in nursing as a profession.—Mrs. J. T. Boyd, Publicity Secretary.

El Paso County Auxiliary held a Christmas tea in El Paso on December 8. Mrs. J. J. Gorman gave some medical current events, and a musical program was presented by the Girls Choral Ensemble of Austin High School under the direction of Mrs. L. C. Davis. Hostesses for the tea were Mesdames Maynard Hart and R. Boverie, assisted by Mesdames F. Golding, B. Lynn Goodloe, J. J. Gorman, J. Leighton Green, H. F. Heslington, J. H. Hinton, R. B. Homan, Jr., D. H. Huffaker, C. D. Hunter, E. H. Irvin, W. H. Jamieson, E. P. Jones, G. Jordan, D. E. Jumper, N. H. Keller, and Sam King.—Mrs. W. W. Schuessler.

Galveston County Auxiliary entertained at a tea honoring the Medical Dames and women medical students of the University of Texas on November 18 at the home of Mrs. S. R. Snodgrass, Galveston. In the receiving line with Mrs. Snodgrass were Mrs. C. Hughes Gilliam, president of the auxiliary, and Mrs. E. A. Blackburn, president of the Medical Dames. The cornucopia centerpiece was arranged by Mrs. Charles Lankford, and presiding at the silver tea services were Mesdames E. L. Porter, Arild E. Hansen, Raymond Gregory, Edward Thompson, Robert I. Wise, Frederick Funston Rogers, Willard Cooke, and Martin T. Towler.

Mrs. Robert M. Moore was chairman of arrangements; Mrs. Clarence Sykes was co-chairman; and members of the committee were Mesdames E. E. Wilkinson, Charles Lankford, Bruce H. Beard, and Mrs. M. R. Hejtmancik. Hostesses with Mrs. Snodgrass were Mesdames George T. Lee, Truman Blocker, Chauncey D. Leake, John Delany, Donald Duncan, and George W. Tipton.—Mrs. C. Hughes Gilliam, President.

Harris County Auxiliary met November 24 at the Garden Center in Hermann Park, Houston, for a talk on medical legislation by Dr. Herman E. Dustin, assisted by Dr. John K. Glen. For the coffee hour which followed, hostesses were Mesdames Ed Crocker, Guy Knolle, Neal DeVore, Frank Renfrow, Lucien Warner, Gordon Hinds, Karl J. Karnaky, Paul Best, Freeman Robbins, Hugh Welsh, Dolph Curb, and Fred Lummis.

A tea at the home of Mrs. L. L. D. Tuttle, Houston, on December 3, honored women visitors during the Post Graduate Medical Assembly of South Texas. Receiving were Mrs. E. C. Ferguson, Beaumont, president of the State Auxiliary; Mrs. C. E. Southern, Burton, president of the South Texas District Auxiliary; and Mrs. Tuttle, president of the Harris County Auxiliary. Assisting at the tea service were Mesdames R. C. Bellamy, Daisetta; F. J. L. Blasingame, Wharton; Peyton R. Denman, Houston; and Henry R. Haden, Houston, all past presidents of the South Texas District Auxiliary; and Mrs. M. L. Graves, Houston, honorary life president.

About three hundred guests attended the Christmas buffet supper dance given by the Harris County Auxiliary at the River Oaks Country Club, Houston, on December 13. New members and their husbands were especially honored. Mrs. J. Peyton Barnes was chairman for the party with Mrs. Lynn Zarr as her cochairman. Other members of the committee included Mesdames Allen P. Bloxsom, Robert A. Edwards, Maurice Meynier, C. Alworth Calhoun, S. Baron Hardy, Frank Ernst, Frank Iiams, Arthur Lewis, Walter Qualtrough, Burt Smith, W. S. Red, Jr., Val Bair, Fred Bloom, John K. Glen, Thomas Donovan, Ghent Graves, Carl Shaffer, Thomas Guthrie, R. C. L. Robertson, Thomas Shearer, William Moorhead, J. E. Dailey, E. W. Griffey, George Hodell, Everett Seale, F. O. McGehee, Werner Hoeflich and H. W. Cummins, Jr.—Mrs. C. G. Turner.

Jefferson County Auxiliary entertained November 5 with a ranch-style round up party for members and their husbands at the Tyrrell Park lodge, Beaumont. One hundred guests were present for the barbecue and beans supper served amid early American decorations and for the square dancing which followed to the accompaniment of a hillbilly orchestra. A caller and four couples led the dancing. Chairman for the party was Mrs. Sam Lyons. The committee included Mesdames Roy Lombardo, Pierre Robert, Richard E. Barr, S. V. Granata, H. B. Williford, and Rufus K. Simpson.

A Christmas luncheon was held December 10 in Beaumont by the Jefferson County Auxiliary. Members of auxiliaries from surrounding towns were invited to attend, and small gifts were exchanged.—Mrs. Rufus K. Simpson.

McLennan County Auxiliary met December 3 in Waco for a musical program provided by students at Baylor University. Hostesses were Mesdames H. U. Woolsey, I. F. Cannon, H. F. Connally, Jr., W. J. Woolsey, W. G. Witte, A. A. Jahns Howard Dudgeon, Jr., M. C. Carlisle, and L. D. Collins.

A resolution on the death of Mrs. H. F. Connally, Sr., was read by Mrs. Paul C. Murphey. The auxiliary voted to contribute $15 to the Community Chest. Plans were made for entertaining the Twelfth District Auxiliary in January.

A social hour followed, with Mrs. H. R. Dudgeon, Sr., presiding at the tea table.—Mrs. F. F. Kirby, Publicity Chairman.

Orange County Auxiliary met October 7 at the home of Mrs. M. E. Becker, Orange, for a business meeting conducted by the Hygeia chairman, Mrs. C. B. Shaddock. She reported the sale of twenty-three subscriptions to *Hygeia* and a gift subscription to each public school and library in Orange. Mrs. David Bennett was cohostess with Mrs. Becker, and refreshments were served to seven.

"Latest Studies in Cancer," was the subject of a talk by Mrs. T. O. Woolley at the November 4 meeting of the Orange County Auxiliary, held at the home of Mrs. Wynne Pierce, Orange, with Mrs. George Kinser as cohostess.—Mrs. T. O. Woolley, President.

Orange County Auxiliary met December 9 at the home of Mrs. C. E. Phillips, Orange, with Mrs. Leo J. Peters as cohostess. Mrs. Peters spoke on "Health in Our Community," giving statistics on immunizations against communicable diseases in Orange County.—Mrs. David Bennett.

Potter County Auxiliary had a luncheon in November at Amarillo with Mrs. W. A. Potter and Mrs. R. B. Payne as hostesses. Twenty-three members heard Dr. H. H. Latson and Mr. L. M. Gunderson discuss the American Cancer Society.

Smith County Auxiliary honored Mrs. E. C. Ferguson, Beaumont, President of the State Auxiliary, at a luncheon in Tyler on December 10. A Christmas theme was carried out in the decorations. Mrs. C. C. McDonald, president of the county auxiliary, extended greetings. Readings were given by Jerry Anderson and Sally Bradford, and luncheon music was played by Mrs. Ruby L. Street, violinist, accompanied by her mother, Mrs. Mable Lawrence. The invocation was given by Mrs. E. D. Rice. Mrs. Ferguson, who spoke on auxiliary matters, was introduced by Mrs. L. B. Windham. Mrs. Elbert Caldwell, council woman for District 11, introduced fourteen out of town guests.

DEATHS*

Dr. Elizabeth Raymond Withrow, Corsicana, Texas, died of suffocation in a fire which damaged her home November 30, 1947.

Dr. Withrow was born in Oklahoma City, August 9, 1908. Her preliminary education was obtained at the Universities of Oklahoma, California, and Michigan, and her medical education at the University of Arkansas School of Medicine, Little Rock, from which she was graduated in 1939. She served a rotating internship at Nix Hospital, San Antonio, in 1939 and 1940, and a residency in obstetrics at Woman's Hospital, Pasadena, Calif., in 1946. She had practiced for one year each in Albuquerque, N. Mex., and Texarkana before moving to Corsicana in September, 1946. She limited her practice to obstetrics and diseases of children.

In 1944 and 1945 Dr. Withrow was a member of the State Medical Association and American Medical Association through Bowie County Medical Society. In 1947 she was a member through Navarro County Medical Society.

Surviving Dr. Withrow are her mother, Mrs. William Raymond, Los Angeles, Calif., two sisters, and a brother.

Dr. William Michael Boguskie, Hearne, Texas, died November 15, 1947, of a coronary occlusion while he was deer hunting near San Saba.

Born March 10, 1900, at Anniston, Alabama, Dr. Boguskie was the son of Mr. and Mrs. W. F. Boguskie. He attended the public schools of Kingsville, Texas, where the family moved when he was a boy, and Southern Methodist University, Dallas, receiving his medical degree from Baylor University College of Medicine, Dallas, in 1929. He served an internship at Hermann Hospital, Houston, and then began his practice in Hearne, remaining active in that city until the time of his death. In September, 1946, Dr. Boguskie did some special postgraduate work in caudal anesthesia at Memphis, Tenn. He had built Hearne's first hospital in 1943 and only recently completed an addition to it.

DR. W. M. BOGUSKIE

Throughout his professional career Dr. Boguskie was a member of the Brazos-Robertson County Medical Society, State Medical Association, and American Medical Association. He was president of the county organization in 1940. Since 1937 he had been city health officer for Hearne. He was division surgeon for the Southern Pacific Railway and resident physician for the Missouri Pacific Railway. Dr. Boguskie was a member of the board of stewards of the Methodist Church, president of the Hearne Rotary Club, past president of the Chamber of Commerce, and a member of Sportsman Pilots Association, Phi Chi fraternity, and the American Legion. He served as a corporal in World War I. At the outbreak of World War II, Dr. Boguskie, a captain in the Reserve, was ordered to

*An obituary ordinarily will not be published more than four months after date of death. Cooperation in reporting deaths of physicians and in furnishing appropriate biographical material promptly is solicited.

duty with the 45th Division, then in training at Camp Barkley, Abilene. While in training there, Dr. Boguskie suffered a heart attack and was discharged from service.

On May 29, 1929, Dr. Boguskie married Miss Thelma Stovall in Abilene. He is survived by his wife; one daughter, Miss Janis Boguskie, Hearne; his mother, Mrs. W. F. Boguskie, Kingsville; a sister, Mrs. Jack Smith, Kingsville; and two brothers, Lloyd Boguskie, Goose Creek; and Robert Boguskie, Raton, N. Mex.

Dr. James Frank Cadenhead, Weinert, Texas, died November 21, 1947, at his home following an illness of more than a year.

Dr. Cadenhead, the son of Mr. and Mrs. J. H. Cadenhead, was born October 12, 1891, at McKinney. He attended the Bellevue public schools and was graduated from the medical department of Texas Christian University, Fort Worth, in 1914. After serving an internship at Harris Memorial Methodist Hospital, Fort Worth, Dr. Cadenhead began practice in Weinert, where he was active until recent months.

Throughout his professional career, Dr. Cadenhead was a member of the State Medical Association and American Medical Association, first

DR. JAMES FRANK CADENHEAD

through Tarrant County Medical Society, then through Knox-Haskell Counties Medical Society, and upon its organization, through Baylor-Knox-Haskell Counties Medical Society. During the period of World War I Dr. Cadenhead served as a captain in the Army Medical Corps in France and was with the army of occupation in Germany for one year. During World War II he was chairman of the medical division of Selective Service for Haskell County. He was president of the Weinert school board for fifteen years and was active in the establishment of the county hospital. He had been chairman of the annual Red Cross drive in Weinert for many years. He was a member of the Christian Church, Masonic lodge, and American Legion.

On February 21, 1920, at Wichita Falls, Dr. Cadenhead married Miss Jewel Pierce. He is survived by his wife; two sons, Dr. James Frank Cadenhead, Jr., Haskell, and Philip Wayne Cadenhead, College Station; one sister, Mrs. W. L. Mount, Henrietta; and a granddaughter.

Dr. Ralph Cline Cross, Texarkana, Texas, died December 15, 1947, in a local hospital following a long illness.

Born July 20, 1900, at Winder, Ga., the son of Wiley H. and Ida Cross, Dr. Cross attended the public schools there and was graduated from Emory University, Atlanta. His medical education was secured at the University of Tennessee Medical School, Memphis, from which he was graduated in 1925. He did additional work at Tulane University, New Orleans, receiving a master of science degree in 1928. He was resident in obstetrics at the Touro Infirmary, New Orleans, from 1926 until 1928, and was assistant surgeon at the Cot-

DR. RALPH C. CROSS

ton Belt Hospital, Texarkana, for three years. He then practiced privately in Texarkana, specializing in obstetrics.

Since 1932 Dr. Cross had been a member of the Bowie County Medical Society, State Medical Association, and American Medical Association. In 1935 he was secretary of the county organization. He was a member of the Baptist Church and the Lions Club. He was in service during the final months of World War I, and assisted with Selective Service during World War II.

Dr. Cross is survived by his wife, the former Lillian Addington Neblett, whom he married September 21, 1934, in Texarkana, and several nieces and nephews.

Dr. William Albert Glasier, El Paso, Texas, was killed October 29, 1947, when the airplane he was piloting crashed near El Paso. His companion, Dr. F. C. Goodwin, El Paso, was also killed.

The son of Dr. and Mrs. W. F. Glasier, Dr. Glasier was born January 8, 1913, in Aberdeen, S. D. He attended New Mexico Military Institute, Roswell, and the University of Notre Dame, Notre Dame, Ind., receiving a bachelor of science degree from the latter institution. His medical degree was secured from the University of Colorado School of Medicine, Denver, in 1938. He served an internship at the El Paso City-County Hospital and was a fellow in surgery at the Lahey Clinic, Boston, in 1945-1946. From 1939 until 1942 Dr. Glasier was in practice in Carlsbad, N. Mex. He was a flight

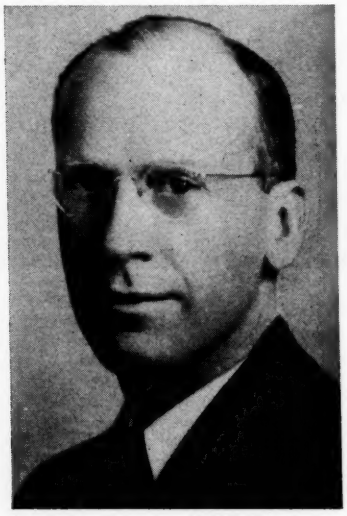
surgeon in the Army Air Corps from August, 1942, until January, 1946, being discharged as a lieutenant colonel. He then began practice in El Paso, where he specialized in surgery until his death.

In 1946 and 1947 Dr. Glasier was a member of the American Medical Association through El Paso County Medical Society and the State Medical Association of Texas. Prior to 1946 he was a member of the Eddy County Medical Society and New Mexico Medical Society. He was a member of the Methodist Church, El Paso Chamber of Commerce, Kiwanis Club, National Aeronautical Association, and Sigma Alpha Epsilon.

Dr. Glasier married Miss Frances Tisdale Hoard on July 1, 1939, in Carlsbad, N. Mex. He is survived by his wife, two daughters, Camille and Pamela, and one son, William Francis, all of El Paso, and one brother, R. A. Glasier, Carlsbad, N. Mex.

Dr. Francis Chappelle Goodwin, El Paso, Texas, was killed in an airplane crash about 135 miles east of El Paso on October 29, 1947. Dr. W. A. Glasier, another El Paso physician, was piloting the plane and was also killed.

Dr. Goodwin was born November 19, 1900, in Live Oak County, the son of James F. and Mary Ann Goodwin. He attended Tulane University, New Orleans; the University of Texas, Austin; the University of Mississippi, Oxford; and the University of Virginia, Charlottesville. His medical degree was obtained from the University of Virginia in 1926. He served an internship at Anker Hospital, St. Paul, Minn., and a residency at Gillette State Hospital for Crippled Children, St. Paul. From 1927 until his death he was in practice in El Paso, specializing in orthopedic surgery. From 1937 until 1942 he was on the staff of the Carrie Tingley Hospital for Crippled Children, Hot Springs, N. Mex. From 1942 until 1945 he was in the Medical Corps of the Army Air Force.



DR. F. C. GOODWIN

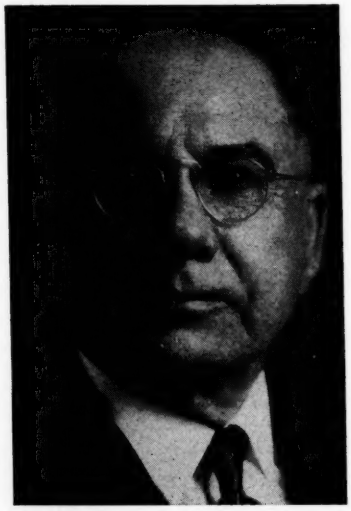
Continuously since 1929 Dr. Goodwin had been a member of the El Paso County Medical Society, State Medical Association, and American Medical Association. He was a member of the Texas Surgical Society and a fellow of the American College of Surgeons and American Academy of Orthopedic Surgeons. He was a member of the Catholic Church, Phi Beta Pi, Sigma Alpha Epsilon, and the Rotary Club.

Surviving Dr. Goodwin are one daughter, Francia Fitzhugh Goodwin, El Paso; three brothers, S. W. Goodwin, El Paso; J. F. Goodwin, George West; and H. G. Goodwin, San Antonio; and two sisters, Mrs. A. M. Bloomer, San Antonio, and Mrs. Sam Pugh, George West.

Dr. John Kroulik, Nelsonville, Texas, died in a Bellville hospital, November 7, 1947, following a cerebral hemorrhage.

The son of John and Frances (Pacher) Kroulik, Dr. Kroulik was born October 5, 1872, at Industry. He attended the Industry, Wesley, and Bellville public schools; Southwestern University, Georgetown; and the University of Texas School of Medicine, Galveston. He received his degree of doctor of medicine from the University of Texas in 1897. He served a three months internship at the I. & G. N. Hospital, Palestine, and then began practice in Nelsonville. He retired from active practice in 1939, having served Austin County for more than forty years.

Dr. Kroulik was a member almost continuously from 1907 through 1939 of the Austin County Medical Society, State Medical Association, and American Medical Association. During World War I he was head of the Austin County medical examining board for selective service. For many years Dr. Kroulik was a school trustee, and for the past ten years he was president of the Industry State Bank, which he had helped to organize in 1910 and for which he had been a director continuously. He was a member of the Czech-Moravian Brethren Church and the SPJST (Slavonic Benevolent Order of the State of Texas).



DR. JOHN KROULIK

In 1899 Dr. Kroulik married Miss Theresa Dusek, who died in 1900. He married Miss Emily Leshikar in 1905. The second wife died in 1930, and Dr. Kroulik married Miss Mary Balusek, who survives. Also surviving are a daughter, Mrs. W. M. Lewis, Houston; two sons, Alfred R. Kroulik, Houston, and John T. Kroulik, Nelsonville; one sister, Mrs. Frances Langer, Wesley; three brothers, Dr. F. J. Kroulik, Smithville; J. L. Kroulik, Brenham; and R. B. Kroulik, Shiner; and one granddaughter, Miss Karen Kroulik, Houston.